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Journal of the

# AMERICAN PHARMACEUTICAL ASSOCIATION

MAY 9 1951

Practical Pharmacy Edition

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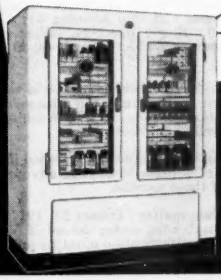

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# *Recent* Progress in Medicine

## INTRAVENOUS ADMINISTRATION OF CHLORAMPHENICOL

Preliminary studies of the intravenous administration of chloramphenicol indicate that the drug may be given rapidly as a 1 per cent solution in therapeutic doses in children without any untoward reactions.

Twelve children, ranging in age from 3 to 9 years, were used in the study, reported by Drs. W. W. Orr, W. G. Preissu, S. Ross, F. G. Burke, and E. C. Rice of Washington, D. C., in the first (April) issue of the new journal, *Antibiotics and Chemotherapy*. Object of the preliminary study was to determine the chloramphenicol blood levels after varying doses of the drug predicated on a body weight basis and to ascertain the incidence of any toxic manifestations.

The researchers used a 1 per cent solution of chloramphenicol, employing acetyl-dimethylamine as the solvent, in 5 per cent glucose in water. Blood levels taken at varying times with varying doses showed that a high chloramphenicol blood level was achieved within 5 minutes, as compared to $1^1/_2$ to 2 hours before peak levels are reached after oral administration of comparable doses of the drug.

The authors recommended a dose of 15 mg. per kg. of body weight every 6 hours, although the widespread use of the drug is not advised before further toxicity studies are made. Intravenous administration is indicated in cases in which the patient is semicomatose or unable to take medications orally.

## ANDROGEN-ESTROGEN VALUABLE IN TREATMENT OF MENOPAUSE

A critical study carried out over an 18-month period, during which 92 patients undergoing the menopause were given tablets containing male and female hormones, both singly and in combination, showed that combined administration of androgens and estrogens was the treatment of choice.

The research, performed by Drs. S. J. Glass and M. R. Shapiro of Beverly Hills, California, and reported in the March issue of the *General Practitioner*, was designed to treat the menopausal symptoms and bring about somatopsychic relief, minimal interference with "normal" changes, and minimal stimulation of the uterus and breast.

Four preparations of identical-appearing tablets numbered in code were used in the study. Tablet No. 1 contained 0.25 mg. of diethylstilbestrol. Tablet No. 2 contained the androgen-estrogen mixture consisting of a ratio of 5 mg. of testosterone (male hormone) and 0.25 mg. of diethylstilbestrol. Tablet No. 3 contained 5 mg. of methyl testosterone and Tablet No. 4 was a placebo.

Seventy-two per cent of the patients obtained optimum symptomatic relief from Tablet No. 2, containing the androgen-estrogen mixture. The range of daily dosage found to give best results was 5 to 10 mg. of testosterone and 0.5 to 1.0 mg. of estrogen during the first 14 to 21 days. For subsequent maintenance therapy, a daily dosage of 2.5 to 0.5 mg. of testosterone and 0.25 to 0.5 mg. of estrogen was recommended.

## NEW ANTIMALARIAL DRUG

Development of an antimalarial drug so powerful that a single ounce would constitute a five- to ten-year supply for the average patient was announced at the national meeting of the American Chemical Society held in Boston this month.

Although the drug is now being tested on malaria victims in Africa, it is still only in the experimental stage and its true value will not be known until adequate clinical evidence has been compiled, according to a report by Dr. George H. Hitchings from the Wellcome Research Laboratories, Tuckahoe, N. Y.

If the drug should prove successful, however, its high potency would make it an unusually valuable weapon in fighting malaria—a disease afflicting an estimated half billion persons in various parts of the world. Dr. Hitchings pointed out that the cost of treatment would be very low and so little of the compound would have to be administered that there would be small danger of toxic reactions. The drug, which is synthesized from readily available raw materials, is of the suppressive type.

Technically known as "5-parachlorophenyl-2,4-diamino-*o*-ethylpyrimidine," the new drug is one of a series developed as the result of an investigation of the fundamental chemistry of cell division.

The first observation, two years ago, of a substance with a potency about the same as that of quinine was the starting point from which drugs of higher and higher potency have been developed. New substances were discovered with five, then twenty-five, one hundred, and finally one thousand times the original potency.

All of these substances belong to a group of 2,4-diaminopyrimidines previously found to inhibit milk-souring bacteria, but fine details of chemical structure greatly affect their action on malarial organisms. The most potent group is the 2,4-diamino-5-phynl pyrimidines, and the most potent substance is 5-parachlorophenyl-2,4-diamino-*o*-ethyl-pyrimidine.

(*Continued on Page 200*)

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• • • • • • • • • • • • *from page 198*

## MYASTHENIA GRAVIS

In treatment of the paralysis and tremor of facial, throat and jaw muscles seen in myasthenia gravis, a new drug, octamethyl pyrophosphoramide, underwent its first clinical trial. An anticholinesterase agent, it proved successful in four of six cases in which neostigmine had not given satisfactory results.

The tests were carried out by Drs. J. A. Rider, S. Schulman, R. B. Richter, H. C. Moeller, and K. P. DuBois of the University of Chicago. The preliminary report appears in the March 31 issue of the *Journal of the American Medical Association.*

The drug was administered orally as a 1 per cent solution in distilled water twice daily at 12-hour intervals. The dosage the first day was 7 mg. at each administration, and was increased by increments of 1 mg. every one to three days, depending on the rate of fall of the serum and red cell cholinesterase levels, until maximum benefit was obtained. At the same time the neostigmine dosage was decreased until it was no longer needed.

Muscular strength of three patients was much improved on the regimen of octamethyl pyrophosphoramide as compared to neostigmine. In another case, the new compound proved equal to neostigmine. In the remaining two cases, no response was noted with either of the drugs.

The authors concluded that octamethyl pyrophosphoramide could replace neostigmine in certain cases of myasthenia gravis. Patients indicated a preference for the drug, as its action resulted in evenly maintained strength greater than the maximal strength obtained with neostigmine.

## TERRAMYCIN BRINGS FAVORABLE RESPONSES IN INFECTIOUS DISEASES

Terramycin was found to be as effective as other antibiotics in a study of 108 cases of infectious diseases commonly encountered in adult and pediatric medical wards of a general hospital.

Drs. R. J. Sayer, J. C. Michel, F. C. Moll, and W. M. Kirby, all of the University of Washington School of Medicine in Seattle, reported their findings in the March issue of the *American Journal of the Medical Sciences.*

The 108 cases included twenty-eight of urinary tract infections, thirty-eight of bacterial pneumonias, twenty-one of pertussis, six of tonsillitis, four of bacillary dysentery, and eleven of miscellaneous infections, including one case each of amebiasis, typhoid fever, and subacute bacterial endocarditis.

The average dosage for adults consisted of 1 Gm. of terramycin orally every 6 hours. Children were given doses of similar magnitude according to body weight. Ten adults with pneumonia received 250 mg. of an intervenous preparation twice daily. Toxic reactions were uncommon, and in only one case was it necessary to discontinue the drug.

Eighty-five per cent of the patients with urinary tract infections had a favorable clinical response. Eighteen of twenty-one children with pertussis had favorable responses to terramycin therapy, and the authors concluded that terramycin was as effective as aureomycin or chloromycetin.

All thirteen adults with bacterial pneumonias had favorable responses, and twenty-two of twenty-five children also responded favorably.

Favorable responses were noted in patients with bacillary dysentery, tonsillitis, erysipelas, and bronchiectasis, and typhoid fever. Two patients with mumps complicated by orchitis improved promptly when terramycin was administered.

## TREATMENT OF ALOPECIA AREATA

Ultraviolet light and use of stimulating antiparasitic ointments were recommended in treatment of alopecia areata (baldness occurring in circular patches) by Dr. N. P. Anderson of Los Angeles. The article appeared in the February issue of *Postgraduate Medicine.*

Ultraviolet light therapy is indicated for office treatment.

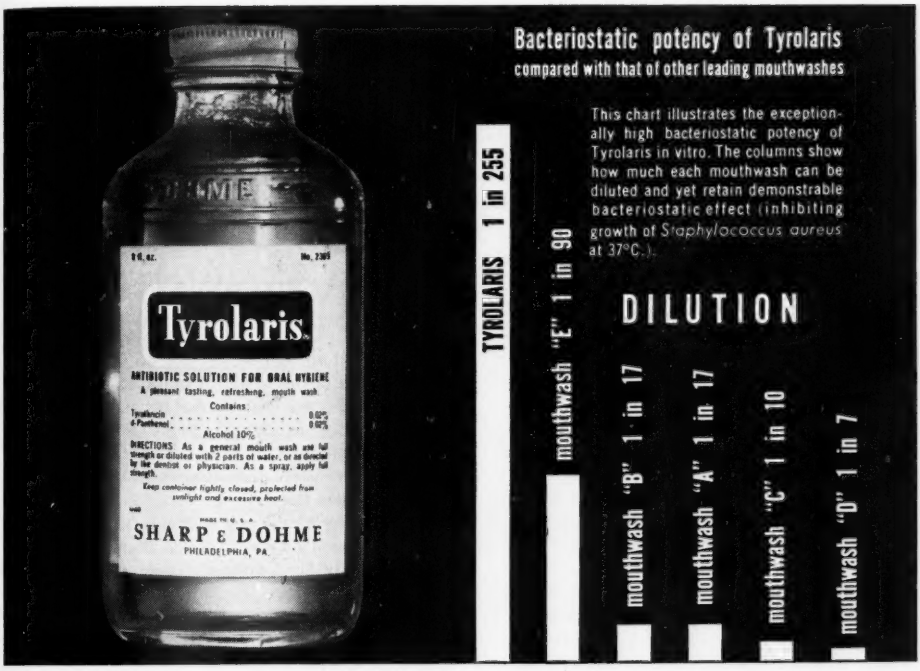
For local use at home, Dr. Nelson suggested ointments containing 3 to 5 per cent of sulfur or 3 to 5 per cent of ammoniated mercury. To either preparation, 1 to 2 per cent of salicylic acid or 1 to 2 per cent of resorcin, or both, may be added. The ointment is applied with moderate friction once or twice daily.

For patients who prefer a stimulating lotion, the following may be applied once or twice daily.

| | |
|---|---|
| ℞ Bichloride of mercury..... | 0.12 |
| Resorcin..... | 4.0 |
| Chloral hydrate..... | 4.0 |
| Tincture cantharides..... | 15.0 |
| Alcohol 70 per cent | |
| Distilled water āā ad..... | 240.0 |

Note: Mono-acetate of resorcin should be used instead of resorcin if patients have blonde hair.

Dr. Anderson stated that in the majority of mild or moderately severe cases of alopecia areata, the measures prescribed usually are followed by regrowth of hair.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## DETERMINING PRESENCE OF CARBON MONOXIDE

*I have been doing some work with the U. S. P. test to determine the presence of carbon monoxide in several of the medicinal cases, and would like to know just what the sensitivity of the test happens to be. I have not been able to find any reference to this question.—A. J. M., Brooklyn, N. Y.*

The U. S. P. test according to "The Analytical Chemistry of Industrial Poisons, Hazards, and Solvents, Second Edition" by M. B. Jacobs, which is published by Interscience Publishers, was originally described in U. S Public Health Reprint 790 (1922) and revised and published in U. S. Bureau of Mines, Miners' Circular 33 (1938). According to Jacobs, on page 436 of his book, "In the range of low percentages, from 0.01 per cent to approximately 0.2 per cent, the pyrotannic acid method is very accurate, and for this reason was formerly used in preference to other methods or apparatus by the gas laboratory of the U. S. Bureau of Mines experiment station at Pittsburgh for determining or confirming the presence of low percentages of carbon monoxide in samples of mine air, especially mine-fire atmospheres."

From the above statement it appears that the lower limit of sensitivity is in the range of 0.01 per cent of carbon monoxide.

## TERPIN HYDRATE INCOMPATABILITY

*What forms the precipitate in this prescription?—H. L., N. Y.*

| | |
|---|---|
| *Codeine phosphate* | *0.2 Gm.* |
| *Hydriodic acid syrup* | *60.0 cc.* |
| *Terpin hydrate elixir q.s. ad* | *120.0 cc.* |

The difficulty experienced in attempting to compound this prescription is due to the precipitation of the terpin hydrate. Terpin hydrate is soluble to the extent of about 1 Gm. in 200 cc. of water. Terpin hydrate elixir, which includes 40 per cent glycerin and 42.5 per cent alcohol by volume, contains practically the maximum amount of terpin hydrate that will remain in solution at a temperature of 15° C. Because of this, the terpin hydrate is precipitated when the elixir is diluted with the aqueous solution of hydriodic acid in the form of the syrup. We can suggest no way in which the prescription as written can be filled without causing precipitation of the terpin hydrate.

## INCOMPATIBILITY OF AMINOPHYLLINE

*What is the best method of preparing the following prescription so that a precipitate does not form upon standing?—M. L. E., Tenn.*

| | |
|---|---|
| *Ephedrine sulfate* | *3 gr.* |
| *Codeine phosphate* | *2 gr.* |
| *Aminophyllin* | *15 gr.* |
| *Potassium iodide* | *8 gr.* |
| *Seconal* | *2 gr.* |
| *Nembutal elixir q.s. ad* | *1 fluidounce* |

We have made a number of tests in the laboratory and, although we were able to make a clear solution of the mixture, we found that a precipitate formed on standing. This precipitate, we believe, was theophylline.

It would not be expected that aminophylline would be compatible with the other ingredients, since it is only stable in an alkaline solution and most of the other ingredients are acidic in character, especially the vehicle. To make the mixture sufficiently alkaline to stabilize the aminophylline would cause decomposition of the Seconal and Nembutal.

We recommend that you suggest to the physician that the aminophylline be dispensed separately as tablets or as an elixir and that the other ingredients be combined as stated in the prescription. We have found that if the aminophylline is left out the prescription is a stable one which is easily prepared with the aid of gentle heat and stirring.

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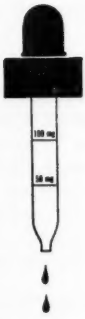

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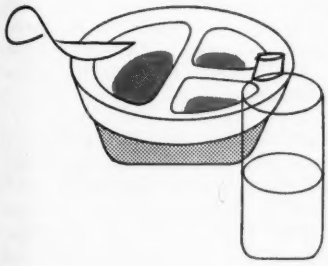

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1941 • A DECADE OF PROGRESS IN ANTIBIOTIC THERAPY • 1951

# science news capsules

**A blood vessel bank** to save and preserve human blood vessels has been established at New York Hospital, Cornell Medical Center and Bellevue Hospital, part of the New York University-Bellevue Medical Center, from which blood vessels may be "drawn" to be used in surgical repair of damaged main arteries of the heart. Reported in the March 24 issue of the *Journal of the American Medical Association* by Drs. E. B. Keefer, W. D. Andrus, Frank Glenn, G. H. Humphreys II, J. W. Lord, Jr., W. B. Murphy, and A. S. Touroff, the blood vessel bank is the first of its type.

**Tooth banks** are also in the realm of possibility, according to Dr. H. H. Shapiro, assistant professor of anatomy at Columbia University College of Physicians and Surgeons, who successfully transplanted the buds of developing permanent teeth from one cat to another. Although there is no assurance that these results can be applied to humans, there is a case on record in which a successful transplantation of a molar tooth was accomplished. Big stumbling block in establishment of such a bank is the supply of human tooth buds.

**Control of panic** in the event of major disaster, such as an A-bomb explosion, will undergo intensive study by scientists of the Department of Defense, Federal Civil Defense Administration, and National Research Council. Purposes of the study are to study psychological reactions and behavior of individuals and local populations in disaster in order to develop methods for prevention of panic and for minimizing emotional and psychological failures. Disaster study teams will study the problems in nineteen major cities.

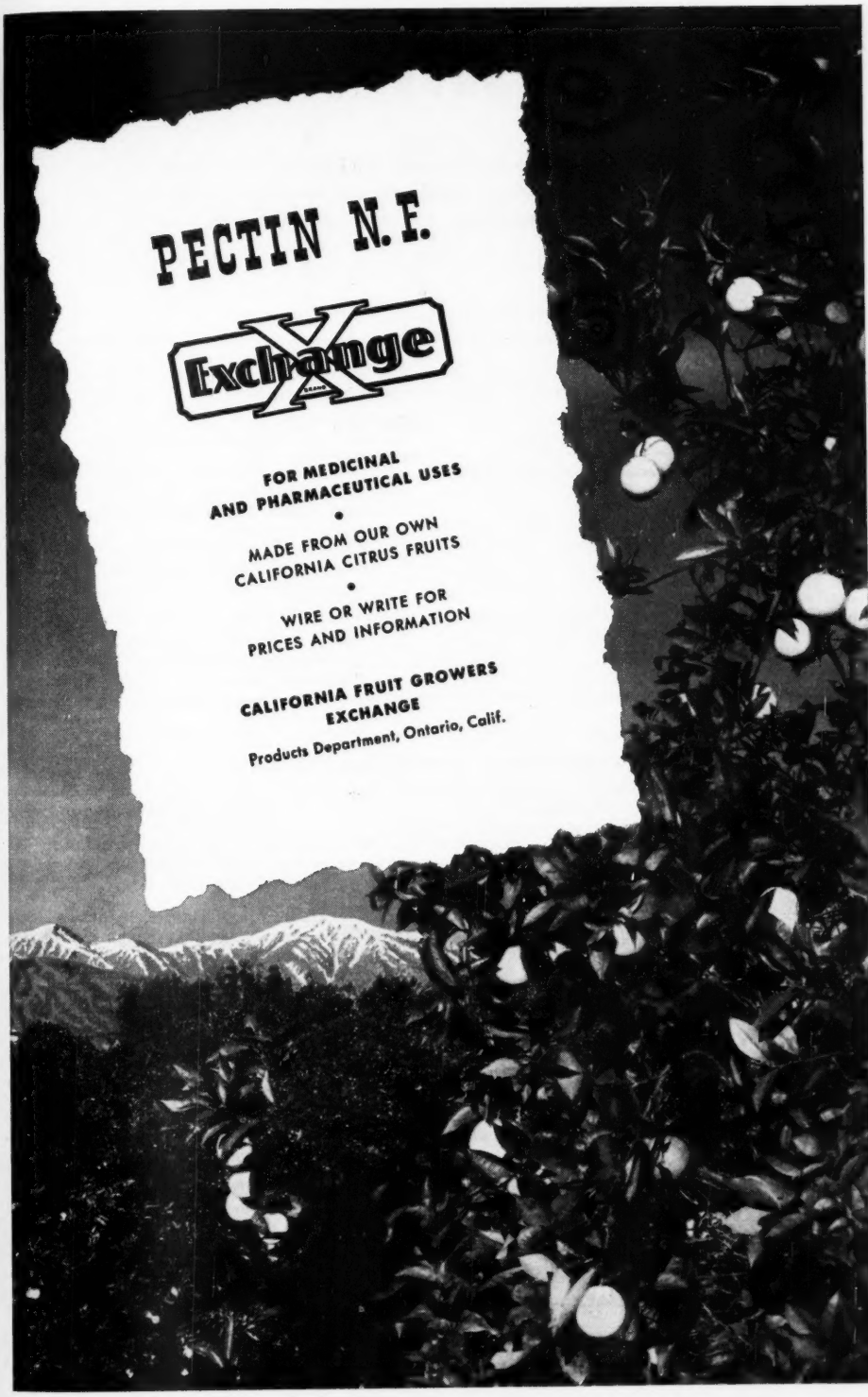
**Glaucoma** is estimated by Dr. E. M. Blake of Yale University to be taking the eyesight of 800,000 Americans who do not know that they are going blind. He told a meeting of the National Society for the Prevention of Blindness that a two-pronged attack consisting of study of the normal eye and the diseased eye and research in psychology and the endocrine glands is necessary if the disease is to be controlled.

**Poliomyelitis patients** who have difficulty in breathing will benefit by a **mechanical "cougher."** The new device, announced by Dr. A. L. Barach of Columbia University at a conference sponsored by the National Foundation for Infantile Paralysis in Houston, Texas, consists of a close-fitting baffle around the patient's neck and a hair trigger air valve geared to operate in $^1/_{800}$ of a second. This permits a sudden and explosive compression of air on the patient's chest and abdomen which simulates the mechanism of a natural cough and expels the collected secretions from the lungs and bronchial tubes.

**Cancer of the thyroid gland** responsed to treatment with male hormone for the first time in medical history. Reporting to the American Cancer Society, Dr. H. M. Lemon of Boston University said that the patient, a 53-year-old woman, has left her sick bed and has been leading a routine normal life. Although a cure has not been effected, scientists are using this opportunity to study the influence of male hormone on protein synthesis in thyroid cancer.

**Radioactive gallium** may be an effective new weapon against bone cancer if certain technical difficulties can be overcome, Comdr. H. C. Dudley, head of the biochemical division of the Naval Medical Research Institute, Bethesda, Md., has forecasted. Radioactive gallium from the Oak Ridge atomic pile has given relief to patients with bone cancer, with promising enough results to warrant further trials. Difficulties to be eliminated are its toxicity and short radioactive life.

**Heart disease** resulting from rheumatic fever is second greatest killer of children in the United States, exceeded only by accident, Dr. George Wolff of Washington, D. C., reported in the March issue of the *Journal of the American Medical Association.* However, the rise of these conditions as number one killers is not due to an increase in deaths, but because of the decrease in deaths from other childhood diseases. Actually, the mortality rate for deaths due to rheumatic fever and heart disease has decreased 70 per cent for children five to ten years, and 60 per cent for the group fifteen through nineteen years.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Legal Actions of the

# U. S. FOOD AND DRUG ADMINISTRATION

***. . . a monthly summary of the terminated cases of the U. S. Food and Drug Administration in fields of interest to the pharmacist . . .***

## COURT JUDGMENTS—FEBRUARY, 1951

### ADULTERATED AND MISBRANDED DRUGS AND DEVICES

| Locality | Product | Violation and Sentence |
|---|---|---|
| Mount Vernon, N. Y. | Succidol; Calvital capsules | Deficient in vitamins and active ingredient claimed in labeling. Sentence: corporation fined $200, 1 defendant fined $204 |
| Cleveland, Ohio | Male hormone | Misleading therapeutic claims; failed to bear adequate directions for use. Sentence: 1 defendant fined $250 and court costs |
| Philadelphia, Pa. | Testramone; A-Vee; Harvaplex—injection drugs | Contained living bacteria; Harvaplex subpotent. Sentence: corporation fined $2000; 1 defendant fined $100 and placed on probation for one day |

### OVER-THE-COUNTER SALES—PRESCRIPTION DRUGS

| Locality | Product | Violation and sentence |
|---|---|---|
| Mena, Ark. | Barbiturates; Amphetamines; Sulfonamides | Sold without physicians' prescriptions. Sentence suspended, 2 defendants placed on probation for one year |
| Mena, Ark. | Barbiturates; Amphetamines; Sulfonamides; Thyroid | Sold without physicians' prescriptions. Sentense suspended; 2 defendants placed on probation for one year |
| Mena, Ark. | Barbiturates; Amphetamines; Sulfonamides; Thyroid | Sold without physicians' prescriptions. Sentence suspended; 2 defendants placed on probation for one year |
| Mena, Ark. | Amphetamines; Thyroid; Stilbestrol | Sold without physicians' prescriptions. Sentence suspended; 1 defendant placed on probation for one year |
| Owensboro, Ky. | Barbiturates; Neo-Hombreol | Sold without physicians' prescriptions. Sentence: 1 defendant fined $150 |
| Barberton, Ohio | Benzedrine; Methyltestosterone | Sold without physicians' prescriptions. Sentence: 1 defendant fined $200 |
| San Angelo, Tex. | Barbiturates; Thyroid | Sold without physicians' prescriptions. Sentence: 1 defendant fined $500 |

# New A. Ph. A. Members

THE ASSOCIATION EXTENDS A CORDIAL WELCOME TO THE FOLLOWING MEN AND WOMEN WHO WERE ACCEPTED FOR ACTIVE MEMBERSHIP DURING THE MONTH PRECEDING PREPARATION OF THIS ISSUE.

### ALABAMA

Dennis, Daniel A., Jr., Mobile
McClure. Kyle W., Birmingham

### CALIFORNIA

Bennett, Boyce P., Santa Monica
Kinister, Leonard F., Santa Ana
LoCasto, Vernon M., Glendale
Meyers, Philip S., Long Beach
Smith, Zita N., Torrance

### COLORADO

Street, John P., Boulder

### CONNECTICUT

Collins, Frederick J., South Norwalk
Grinwalsky, Andrew T., Winsted
Kornacki, Stanley J., Terryville

### DISTRICT OF COLUMBIA

Gottscho, Mathilde M., Washington

### GEORGIA

Taylor, George W., Milledgeville

### ILLINOIS

Sagona, Frank M., Rockford
Schmidt, Harry W., Villa Park

### INDIANA

Lafferty, Grant, Terre Haute
Sister M. Rose Seipel, Michigan City

### IOWA

Bendon, Lucille W., Council Bluffs
Ladenthin, Harold C., Sioux City
Spinner, Paul P., Lansing

### MARYLAND

Patterson, Belle, Baltimore

### MICHIGAN

Deniston, Roy J., Detroit
Field, Ernest F., Detroit
Gorrilla, John J., Jr., Ironwood
Jefferies, John, Wyandotte

### MISSISSIPPI

Oschmann, Esther, Biloxi

### NEBRASKA

Harris, K. E., Ashland

### NEW JERSEY

Goldman, Sidney, Newark
Jameson, Frederick P., West Caldwell
Segel, Harry, Camden
Wilhelm, Rudolph L., Newark

### NEW YORK

Berghash, Hyman H., Buffalo
Christiansen, Ralph C., Buffalo
Clark, Jane F., Rochester
Kachurin, Leon E., New York
Klioze, Oscar, Bayside
Kushner, Ralph M., Buffalo
Levy, Arthur, Buffalo
Martin, Edward W., Brooklyn
McCauley, Lewis N., Buffalo
Nowak, Clara J., Buffalo
Rosenkrans, E. C., Medina
Shepherd, Thomas N., Buffalo
Ziffer, Frederick W., New York

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Tyler, Lloyd P., Celo

### OHIO

Jordan, Lawrence W., Rocky River
Konczal, Joseph J., Jr., Findlay
Marciniak, Chester J., Toledo
McGuire, Harry B., Fostoria
Moss, Montressa H., Cleveland
Spitzer, Charles E., N. Ridgeville

### OREGON

Clayton, James W., Salem
Koch, George W., Portland

### PENNSYLVANIA

Bergen, William H., Sr., Philadelphia
Finn, Edward J., Philadelphia
Lustgarten, Paul G., Philadelphia

### RHODE ISLAND

Houle, Lionel L., West Warwick

### TENNESSEE

Jeffery, Harley M.. Memphis

### TEXAS

Stephens, Harold B., San Antonio

### WISCONSIN

Epstein, Harry, Milwaukee
Geiger, Paul. Milwaukee
Goldberg, Manford, Milwaukee
Hansen, Ray J., Milwaukee
Hasenmiller, Eugene, Milwaukee
Hryniewiecki, Henry, Milwaukee
Krueger, Gerhardt, Milwaukee
Mann, Jack, Shorewood
Mealy, R. Leslie, Milwaukee
Placek, Edward J., Milwaukee
Turim, Solvin L., Milwaukee
Weitenhagen, William H., Milwaukee

### WYOMING

Carlson, James R., Sheridan

### U. S. POSSESSIONS

Maldonado, Enrique L., Santurce, Puerto Rico

### FOREIGN

Corena, Julio, Barranquilla, Colombia, South America
Fabian, Detlef E., Cochabamba, Boliva, South America
Kinlay, Desmond J. M. P. S., Cape Town, South Africa
Martel, Hubert J. P., Montreal, Que., Canada

## Deceased Members

Andropolis, Jacob, Sheboygan, Wis., Jan. 11, 1951
Bakkers, Andrew, Chicago, Ill., June, 1950
Bishop, Marion M., Amsterdam, Ohio
Broadbent, Ralph A., Lansing, Mich., Oct. 15, 1950
Hoerlein, Charles L., Oskaloosa, Iowa, Oct. 3, 1950
Parrish, Ira O., Forsyth, Mo.
Remy, Eugene H., Cleveland, Ohio, Jan. 1, 1950


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*CHALLENGE OF THE TIMES*

The complexities of prescription service become greater with each passing year. Experienced pharmacists know that changes in prescribing habits can be sudden and wholly unpredictable. Never in the annals of the drug business have so many prescription products been promoted to physicians. New ones appear with striking frequency. Although a certain degree of duplication is unavoidable, a good plan is to standardize as nearly as possible on one established line. The physician may not always specify, but he will never refuse to accept a Lilly product. Standardization on the Lilly Label can help to keep inventories at a reasonable level, add profit and prestige to your store.

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*Journal of the*

# AMERICAN PHARMACEUTICAL ASSOCIATION

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*Practical Pharmacy Edition*

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APRIL, 1951

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*American Pharmaceutical Association*
*2215 Constitution Ave.,*
*Washington 7, D.C.*

# STRAIGHT FROM HEADQUARTERS

by Robert P. Fischelis, *Secretary*
AMERICAN PHARMACEUTICAL ASSOCIATION

## A Serious Responsibility

THE circus type of advertising which has been revived in connection with the recent promotion of a so-called vitamin tonic proves that human nature does not change and the gullibility of people is unaffected by recent advances in medicine and pharmacy. Charlatans can still amass fortunes under existing drug and pharmacy laws by complying with their letter but ignoring their spirit.

Professional people as well as law enforcement authorities stand idly by and witness the employment of blatant advertising and publicity techniques which impress ordinary citizens in spite of all the dignified and persuasive health education programs and literature that are made available by health departments and professional groups working together earnestly to spread the truth about disease and methods of preventing and curing it.

The sad part of the situation is that some physicians and pharmacists are unwitting or careless contributors to the success of these rackets. A physician may look at the formula of a vitamin product, note that according to the label it contains the minimum dietary requirements, or more, of essential vitamins and minerals and come to the conclusion that the product can probably do no harm and that it may supplement a carelessly selected diet. Therefore, no serious objection is offered to its use and in some cases it may even receive the physician's tacit recommendations. Actually, some publications reaching the medical profession accept advertising of such products regardless of the promotional methods employed.

Pharmacists in general have not exercised as much discrimination as they should in stocking ready-made medicines. They rely on federal and state authorities to police the quality and therapeutic claims for such products and generally ignore the promotional methods employed by the manufacturers. When the public begins to call for preparations by name, the pharmacist is inclined to supply them as a part of his regular service and thus he frequently profits from such promotions even though he would refuse to be a party to their conception.

This unfortunate chain of circumstances links reputable physicians and pharmacists with promotional schemes that are abhorrent to them and probably violate their respective codes of ethics. It is a difficult situation to handle as long as reputable newspapers and magazines and the radio, television, billboards and other accepted advertising media are employed around the clock to convince people that they must take the promoters "elixir of life" in order to be saved.

But to state the case as we have is not to excuse participation, involuntary though it may be, by physicians, pharmacists and other personnel in the health field in the revived "medicine show" or other means of preventing the sick or near-sick from getting adequate medical care or wasting their money. There is a responsibility on the part of all the professions engaged in providing

medical care to discourage racketeering in this field by exposing the untruths or half-truths or the unethical methods employed by promoters of the sale of medicines directly to the public without medical advice. This responsibility is not discharged by a shrug of shoulders when action is indicated.

Perhaps the time has come for all national organizations in the drug industry to join in an extra-legal policing effort. To some extent this has already been done by the Proprietary Association of America which is most concerned with products manufactured and distributed for self-medication. But a wider and more effective system to reach products not produced by members of this group or which have not accepted the self-imposed standards of this group, especially with respect to advertising, is necessary.

We cannot shirk our responsibility in this situation and retain the confidence of the thinking public.

✦ ✦ ✦

## Anticipated Ruling on Prescription Refilling

WE CAN state positively to the pharmacists of the United States that although there has been a delay in the issuance of the final ruling by the Federal Security Agency on the interpretation of the Food, Drug and Cosmetic Act with respect to filling and refilling of prescriptions, such a ruling is expected in the near future.

Administrator Oscar Ewing of the Federal Security Agency has had under consideration for several months the various comments which have been filed with him on the tentative ruling which was published in The Federal Register on December 6, 1950. A revision of the proposed ruling has been under way but it has been delayed because attorneys of the Administration who are writing the ruling have been engaged in trying important cases on the West Coast.

It is anticipated that a revised tentative ruling will be published in the near future and that further comment from the profession and industry will be asked for before the ruling is made permanent.

The AMERICAN PHARMACEUTICAL ASSOCIATION is issuing this information on the highest authority at this time because unfounded rumors have been circulated to the effect that Mr. Ewing does not intend to issue the expected ruling because of pending legislation on the subject. It is well recognized that controversial legislation of this kind is very apt to be sidetracked by Committees of Congress until those affected by such proposed legislation can reach an agreement.

In the meantime, it is important that the legality of the interpretation of the Food and Drug Administration of the present Food, Drug and Cosmetic Act with respect to the filling and refilling of prescriptions be determined. In a Bulletin (No. 7) issued last August, we stated: "The ASSOCIATION will obviously take no stand on proposed legislation until the fundamental issue raised in the communication to the Federal Security Administrator has been settled." This is still our position.

We believe that the issue has been clarified sufficiently to warrant the promulgation of a ruling under which the pharmacists of the United States can carry on their important prescription work without undue regulatory interference. If the ruling to be issued does not meet the current needs of the medical and pharmaceutical professions, further action will be taken. In the meantime, practicing pharmacists need not fear prosecution for authorized renewal of prescriptions whose renewal is not prohibited by Federal or State narcotic laws or State barbiturate and dangerous drug acts.

✦ ✦ ✦

## Cortisone Poses a Problem

NEW problems come to American pharmacy from unexpected sources without warning. When cortisone first became available for general use it was not expected that its distribution might become a major problem. We had become accustomed to governmental regulation of the distribution of scarce drugs through the method followed when penicillin first became generally available during World War II. The limited production was originally confined to the armed forces. As this demand was filled and some surplus was available, a committee of the National Research Council was

*(Continued on page 244)*

# THE Professional Service —PHARMACIST

by Arthur F. Peterson

Director, Sales and Distribution, Pharmaceutical Division, Geigy Company, Inc., N. Y. Presented before the Section on Historical Pharmacy, AMERICAN PHARMACEUTICAL ASSOCIATION, Atlantic City meeting, May 1951.

***Since 1850, when he made his first call, the "Detail Man" has fulfilled a vital service to pharmacy and medicine. However, his job has just begun.***

THE history of the development of pharmaceutical selling by pharmaceutical manufacturers during approximately the past century parallels the progress of medicine. Selling and detailing by means of representatives further parallels the development of centralized manufacture and the introduction of pharmaceutical specialties.

The earliest record that has come to my attention appears to indicate that selling by the first pharmaceutical manufacturer in the U. S., established originally and exclusively as such, commenced in 1824. By 1839, a fourth edition of The Tilden Company's catalog of its own manufactured pharmaceutical preparations had appeared. It offered about 120 botanicals, about 25 extracts, some inspissated juices, lozenges, pills, and syrups. Characteristic of early specialties were such titles as "Compound Vegetable Cough Balsam," "Vegetable Cough Drops," "Concentrated Syrup of Liverwort," "Compound Concentrated Syrup of Sarsaparilla," "Compound Syrup of Black Cohosh," and "West's Patent Chlorine Cosmetics and Pills." These provided special reason for personal solicitation of business from druggists and physicians supplementary to advertising in medical journals and by house organs such as Tilden's Materia Medica which was distributed monthly to physicians during the 1850's and 1860's.

George S. Davis, who joined the new Parke, Davis & Company in 1867, is generally regarded as the firm's first traveling salesman. As the firm grew, additional representatives were added. Its New York branch office was established in 1881. During this early period its representatives called not only on pharmacists and wholesale druggists but on physicians as well.

The Wm. S. Merrell Company placed men in the field around the year 1880. This date practically coincides with the company's introduction of pharmaceutical prescription specialties. Reed & Carnrick placed its first representative in the field in the late 1860's; Lilly about 1880; Wyeth about 1890; Squibb in 1904; and Abbott Laboratories in 1905.

Apparently, most of the medicines in the period prior to 1890 were dispensed by physicians. Therefore, much selling by pharmaceutical houses was done directly to physicians. Such dispensing began to wane as pharmaceutical manufacturers placed representatives in the field and increased their sales staffs. Today, dispensing by physicians has decreased relatively to the point where, in the foreseeable future, it is most likely to be almost non-existent. Dispensing by physicians and clinic-owned pharmacies encourages thinking favorable to socialized medicine. Such practice is not conducive to the maintenance of a system of free enterprise and properly divided professional responsibility.

### Need for Pharmacists

In the early days of detailing activities by pharmaceutical manufacturers, more physicians proportionately than now were employed for this work. The reason is obvious in that it was desired that men who called on physicians should be well informed in the pharmacology and therapeutic application of the drugs they had to sell. But physicians proved to be not too popular for this work as "they had the tendency to tell

From 1850 until today, the detail man has been a link between the pharmacist and the physician and patient

doctors how to practice." One pharmaceutical manufacturer had, of 40 detailers, 15 who were M.D.'s. Pharmacists, however, were employed in greatest number. As the pharmaceutical-education requirements for graduation from our colleges of pharmacy have increased, fewer and fewer physicians have been employed for detail-work until the present day when physicians doing this work are the rare exception.

Marked and accelerated increase in the size of pharmaceutical manufacturers' staffs of representatives began at the turn of the nineteenth century. This followed closely on the advent of and the progressive increase in the number of pharmaceutical prescription specialties. Additional pharmaceutical manufacturers came into the picture. Our growing population naturally had its effect on this expansion in sales and detail staffs. Advertising by means of house organs, and by medical-journal and direct-mail advertising increased with the growth of sales organizations, although in the earliest years in the history of American pharmaceutical manufacturers, advertising apparently carried by far a greater part of the selling responsibility.

Selling by personal solicitation seems to have been beneath the dignity of many of our pharmaceutical-manufacturing forefathers, as for example one of them who "raised Cain" with his more enterprising young son who made a trip to a near-by city for the purpose of stimulating the firm's business among physicians and pharmacists. It was the old gentleman's theory that if people wanted to buy the firm's products they should come and get them. Some of our present-day professional pharmacists seem still to be imbued with the same idea, but detailing of physicians by and for apothecaries has been the secret of success of many professional pharmacies of today. It will be more important in the future.

Many of our present-day pharmaceutical-manufacturing establishments sprang from retail pharmacies. Pharmacies were, in fact, the first manufacturers of pharmaceuticals, though for local consumption of course. Active detailing and advertising promotion, coupled with scientific research, has brought pharmaceutical manufacturers to their present status. Sampling of products to physicians has played an important role in pharmaceutical marketing.

From about 1900 to 1923 ethical-pharmaceutical manufacturers increased the number of their representatives rather modestly. While I do not know the exact number, I would guess on the

*(Continued on Page 251)*

# professional equilibrium and compounding precision

*by Albert M. Mattocks, Ph.D.*
*and Samuel W. Goldstein, Ph.D.*

**A Report from the Laboratory of the AMERICAN PHARMACEUTICAL ASSN.**

RECOGNITION of pharmacy as a profession hangs in the balance! A majority of our practicing pharmacists find it difficult to determine the proper and most remunerative balance between their professional and their merchandising activities. It is difficult for some pharmacists who have solved that problem to maintain a detached and calm mental equilibrium in the maze of ever-increasing new drug products and duplications, the changing overhead expenses and drug price alterations, the changing and always increasing taxes and records, and the confusing interpretations of laws pertaining to pharmacy. But there is no doubt at all that some pharmacists could enhance the appearance of their prescription departments and improve their professional standing by obtaining, maintaining, and properly using adequate prescription equipment. This is notably true of prescription balances.

Several surveys of compounding precision have been published in the last few years. The frequency and extent of excessive deviations in the studied preparations have been revealing to some pharmacists and amazing to others. The results show that aside from the extreme deviations caused by erroneous calculations, confused mental states, and complete indifference to general techniques, a great many errors must be attributed to the unintentional improper use of good equipment and the use of inaccurate equipment which have flaws that are undetected by the pharmacists.

The American Pharmaceutical Association Laboratory staff is undertaking a study of the fundamental factors affecting compounding precision. These studies will be coordinated with recommendations of the A. PH. A. Committee on Prescription Tolerances. This committee includes outstanding practicing pharmacists. The results of these studies will be made available in THIS JOURNAL, together with recommendations and instructions for improving compounding accuracy. We will start with the balance, because weighing is generally the first step in most compounding procedures.

## what is a prescription balance?

True prescription balances, or Class A prescription balances, are manufactured to meet the high standards of precision of the National Bureau of Standards and are thoroughly tested for accuracy before leaving the factory. Properly used and cared for, they will give long service with low repair costs, and the high precision will be maintained. On the other hand, a single accident or abuse of this delicate piece of apparatus may cause a significant change in sensitiveness, although its appearance to the eye may be unchanged. If the operator is not on the alert for such changes in the balance, the difference might not be detected. It is the purpose of this article to review the types of approved prescription balances.

The National Bureau of Standards says that a balance used in the compounding of prescriptions should meet a specific set of requirements which have been carefully formulated.

There are two types of prescription balances, Class A and Class B, which differ in their accuracy and sensitivity. Separate tolerances are set up for each type by the National Bureau of Standards. The Class A balance should be used for weighing amounts of 0.65 Gm. (10 grains) or less, and it is useful for amounts up to 15 to 120 Gm. (½ to 4 ounces), depending upon the stated

capacity. The Class B balance may be used for weighing larger amounts but not for weighing less than 10 grains. The tolerances for the Class B balance are still stringent enough so that weighings of larger amounts on this instrument can be sufficiently accurate. The purpose of having the two types of balances is to make it possible to weigh larger amounts of drugs on a less delicate balance and thus save wear on the more sensitive one; however, the Class A balances now manufactured usually weigh up to 4 ounces without any risk of damage, so that Class B balances are becoming less important. Every prescription department must have a Class A balance. The Class B balance is optional. A Class B balance should be conspicuously marked with the words, "Class B—not to be used in weighing loads of less than 10 grains." Type this on a label and stick it on the front of the balance to remind any operator of the practical limitation of the balance.

A prescription balance, whether Class A or B, should meet the following general requirements:

1. It should be constructed so as to support its full capacity without developing undue stresses, and should not be thrown out of adjustment by repeated weighings of the capacity load. (The capacity of the balance will be seen on the metal plate attached to the balance.) If the capacity of the balance is not stated, it is assumed to be at least 15 Gm. (1/2 ounce). The new Class A balances usually have a capacity of 120 Gm. (4 ounces).

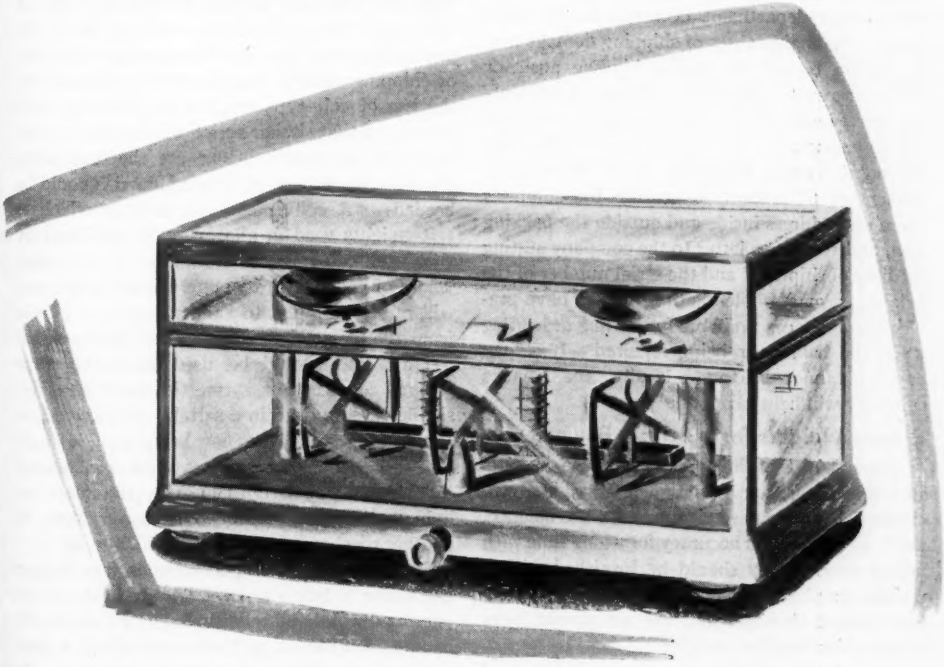
2. The removable pans of a prescription balance should be of equal weight. If the pans show any difference in weight, they should be adjusted. Pans with any appreciable corrosion or wear should be refinished or replaced.

3. A prescription balance should have a leveling device, usually leveling feet or screws, so that the balance can be adjusted to a level position. A balance that does not have these is not entitled to be designated a prescription balance.

4. The balance that has a rider or poise should have, at the end of the scale, a stop which halts the rider at the "zero" reading. The reading edge of the rider should be parallel to the graduations on the beam.

5. The indicator points, when there are two on the balance, should be sharp, and their ends should not be separated by more than 0.04 inch when the scale is in balance. The distance from the face of the index plate to the indicator pointer or pointers should be small (0.04 inch or less) so

*(Continued on next page)*



*The first of a series of articles on the balance and precision in compounding. Part II, in May, will present tests to check balance accuracy.*

as to protect the operator against making errors resulting from parallax, since it is unlikely that the eye of the operator will be exactly in line with the indicator and the division on the index plate. The indicating elements as well as the lever system of the balance should be protected against drafts. The balance should have a lid which allows a weighing to be made when the lid is closed.

6. A prescription balance must have a mechanical means for arresting the oscillation of the mechanism.

### What To Do with a Faulty Balance

If the balance does not meet the proper requirements, adjustments should be made only by qualified repairmen. Next month, we will present the techniques to follow in testing the accuracy of a balance. If the balance is to be shipped, the manufacturer's instructions must be carefully followed, making sure that no more damage will occur during the shipment. Detailed shipping instructions are gladly furnished by the manufacturers of the various prescription balances.

During a recent conversation with members of one of the leading pharmaceutical balance manufacturing firms, we learned that perhaps more than 50 per cent of the damages to balances received in their repair department occurred during shipment. The main causes of shipping damage are: (1) failure to use the special binding posts or oscillator arrests built in the balance for preventing movement of the balance beam, and (2) failure to pack the detachable pans so that they will not fall about within the lid of the balance. Remember to place tags bearing the shipper's name and address inside and outside the packing case, and to write a letter to the company stating the date of shipment and the serial number of the balance. Some wholesale drug houses have prescription balances available for renting or lending while the balance is being repaired. If a loan balance cannot be found locally, the balance company will help locate one.

### Proper Weights for a Proper Balance

*Metric Weights.* For prescription use, weights should be Class C or better. These weights have errors well within the tolerances for the balance, and they retain their accuracy for a long time with proper care. They should be furnished with a wooden or plastic box which serves as a protection against damage, and the set should have tweezers for handling weights.

*Apothecaries' Weights.* The coin-type of apothecaries' weights are a constant hazard to compounding accuracy. Their irregular surfaces very readily pick up powdered chemicals, dust and moisture, and their surfaces corrode quickly. If this type of weight is used, a new set should be purchased every year, or whenever any corrosion or chipping occurs. Some states have outlawed the use of coin-type weights in pharmacy, and it is hoped that similar action will be taken eventually by all states. Gone are the days when the following advice of Edward Parrish could be heeded: "A convenient standard by which to test weights used in pharmacy is furnished by the legal coins issued from the U. S. mint. Those of gold are to be preferred and when new will rarely be found to vary more than 0.1 grain from the assigned weights." The apothecaries' weights that should be used have the same general construction as metric weights. They should be contained in a suitable protective box. If coin-type weights are now being used, it would be good economy as well as good professional judgment to replace them with the more reliable cylindrical type. The newer type of apothecaries' weights are about $5.00 a set.

Unless weights are expensive ones, it is cheaper and easier to buy a new set than to have the old ones readjusted and refinished, but if they should be an expensive set, and this particularly applies to the metric weights, they can be shipped to the manufacturer for correction at a reasonable cost.

***(To Be Continued Next Month)***

## Authors' Summary

**To increase compounding precision as a step toward enhanced professional recognition, all pharmacists should institute periodic checking schedules for balances and weights.**

**Examine the balance to see if its construction meets the requirements for a prescription balance.**

**Determine whether balances are Class A or B. The dispensing room should have at least one Class A balance. All Class B balances should be properly labeled. Purchase a set of test weights for prescription balances.**

**Replace coin-type apothecaries' weights with the newer cylindrical type. Examine present sets of weights to make sure they are not scratched, or corroded.**

# George Washington University Opens Dispensing Laboratory

In February of this year, dispensing pharmacy students of the George Washington University School of Pharmacy began their work in the modern laboratory pictured on this page. While designed as a teaching laboratory, it provides all the features of a modern prescription room.

The furniture is of ash-stained birch wood with an alcohol-resistant finish. All working areas are formica covered and all shelves are adjustable. The laboratory proper is 28 by 24 feet and provides work areas for 18 students. In addition, cabinets along two walls provide an additional 75 square feet of working space. The wall cases above the cabinets, which are inclosed with plate-glass sliding doors, provide about 150 running feet of shelf space. The cabinet tops are lighted by fluorescent lights concealed beneath wall cases.

Ample storage space is available in the wall cabinets where forty-eight four-inch-deep drawers provide 78 square feet of space. Beneath the drawers is additional storage space of $1^2/_3$ by $1^1/_2$ by 50 feet dimension.

Three stainless steel sinks provide each student ready access to this facility. Waste receptacles are included beneath each of the sinks.

The table units are 4 by 8 feet and provide working space for four students, each having his own prescription balance. For storing equipment, each student has available three drawers $1^1/_2$ by $1^1/_6$ by $^2/_3$ feet and has access to a common cupboard $2^1/_2$ by $1^2/_3$ by $1^1/_2$ feet in dimension. On each end, just beneath the table top, is a pull-out ointment slab. Four shallow drawers provide storage space for powder papers, filter papers, spatulas, etc.

One feature of the laboratory is a stand-up telephone and reference desk (not shown in picture). This unit is 2 feet deep by 3 feet in width and provides four drawers for 3 by 5 index cards and four letter-size drawers for literature regarding new products. Directly beneath the top is space, the width of the unit, for reference texts, and directly above the unit is a bulletin board approximately 3 by 3 feet. Through the use of the telephone, prescriptions can be called into the laboratory from any office within the School.

Students will become familiar with the names and uses of the specialty products of the various manufacturers through incorporation of prescriptions on these items with the laboratory work.

Ample lighting is provided by six fluorescent units and adequate ventilation is assured through an exhaust fan with a capacity of 2500 cubic feet of air per minute.

# *a postgraduate program for the practicing pharmacist*

by Edward P. Claus

University of Pittsburgh School of Pharmacy

**You can't "refresh" a subject that was never known before. Professor Claus urges a program of basic training geared to the demands of modern pharmaceutical progress that will truly be practical for the pharmacist of 1940 and before.**

WHEN a young man graduates from his college of pharmacy he feels, and rightly so, that he is adequately equipped to practice his profession. Thereupon, he immediately begins his necessary quest for the all-important dollar. If he is diligent, capable, and astute, he may become the owner-manager of his own establishment. This process may take him ten years. Then he works harder than ever to make his business profitable. Another five years pass. When he finally stops to catch his breath and can afford to relax a little, he suddenly realizes that he is fifteen or twenty years behind in his profession although it seems only yesterday that he was graduated and up-to-date. This is the situation in which many of our practicing pharmacists find themselves today. When the graduates of the two- or three-year course in pharmacy, and possibly even some of the graduates possessing Bachelor's degrees, realize the startling modern advances in their profession they feel the urgency for further knowledge. Such knowledge is essential in talking intelligently with their physician friends, dentists, fellow Rotarians, high-school students, and even the laity.

Professional meetings wherein one or two hours a month are spent listening to a lecturer speak on general research or on some isolated phase of research could scarcely constitute the postgraduate education of the practicing pharmacist. How else, then, can he acquire an adequate knowledge of the pertinent facts of modern pharmacy and related professional subjects? What can be done to enable him to learn more of the present-day medicating agents, of new pharmaceutical compounding problems, and of the many hundreds of specialty items which he must stock on his shelves? What type of an abbreviated postgraduate program would best serve the practicing pharmacist and, at the same time, be consistent with the needs of the educators and the colleges for which they work.

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Presented to the Section on Education and Legislation, AMERICAN PHARMACEUTICAL ASSOCIATION, 1950 meeting, Atlantic City.

### The Vital Need

The importance of a postgraduate educational program for the pharmacist who may have graduated ten, fifteen, twenty, or more years ago is a major consideration of any educator who has seriously studied this problem. The logical place for the practicing pharmacist to expect aid in regaining the modern concepts of the pharmaceutical field is his own college of pharmacy or the nearest college of pharmacy if he has moved away from his original Alma Mater. Recent pharmaceutical publications have listed a number of colleges of pharmacy which have offered various types of "refresher" courses for their graduates. These colleges are to be commended for their efforts in this venture of attempting to keep their graduates informed of new developments in the pharmaceutical field.

However, the "refresher" courses offered by some colleges of pharmacy are misnamed since the recipients, to begin with, have little or no knowledge of certain subjects and so, obviously, their memory cannot be refreshed! In many cases one- or two-day meetings are conducted with or without registration fees and generally with luncheons and/or dinners or banquets scheduled. Actually, these affairs are specifically planned as alumni homecomings with featured speakers invited to present to the audience the results of their scientific investigations. There may also be prescription clinics, prescription pricing discussions, compounding demonstrations, etc., each of which entertains and instructs the visitors but which rarely offers specific details. These meetings may be called Seminars and may be attended by from fifty to several hundred persons including the student body of the host school of pharmacy. Although the students are capable of understanding the topics, the alumni are usually somewhat perplexed regarding the subject matter but are impressed with the importance of the speakers. It is logical to assume that the graduates cannot completely grasp the significant remarks of the lecturer because they do not have, or more likely did not receive, the proper scientific background in their undergraduate training. This is no reflection on the teaching program of the school; it merely indicates that a comprehensive type of instruction is now being offered.

### Questions No One Can Ask

At seminar meetings the graduate cannot ask questions of his own age group since they are in the same predicament; he also hesitates to ask questions in an open meeting before the student body. As a result, he realizes that attendance at such meetings adds little to his general store of information. He does learn isolated facts but without an appreciation of the theory involved. When the pharmacologist speaks of the parasympathomimetic drugs how can the graduate be expected to know the specific phases of physiology implicated if his collegiate physiology course was not sufficiently detailed? How can he recall the structure of the organic groupings when the pharmaceutical chemist discusses the relative advantages of the ethylenediamine antihistamine drugs if he has not reviewed organic chemistry for twenty years? After several such experiences he merely attends the dinners or banquets to support his Alma Mater and feels that his presence at the sessions is a waste of time.

If his college of pharmacy offers accredited graduate courses they would attract the attention of the recent graduate interested in obtaining an advanced degree. Obviously, the not-so-recent graduate cannot leave his place of business for a year, or even for a semester, to acquire or to replenish his informational background. If he lives in a city or town 75 or 100 miles distant from the college, his traveling time is prohibitive. How can this educational problem be remedied?

*(Continued on next page)*


## Author's Summary

**The importance of a refresher program for the graduate of 1940 and before is a major consideration of any educator.**

**Courses now being offered in many localities fail to meet the need.**

**Practicing pharmacists cannot afford to take a year out of their business life for graduate study.**

**Extension divisions in smaller population centers might prove to be a practical solution.**

**Courses held over a two-week period, in the first four days of the week, hold promise of success.**

**The curriculum must be geared to the student body's ability to absorb the information.**

### Possible Solutions

If the pharmacist cannot be present at the college to attend special sessions designed for him, then the college should take the course of instruction to the pharmacist. Possibly one solution would be for the college of pharmacy to establish an extension division in a smaller center of population. This could be manned by a skeleton staff of the more competent members of the college faculty. This center could not expect to give complete courses of instruction nor could it give scholastic credit to the recipients. However, it could offer an abbreviated series of lectures on certain subjects and, if requested, could grant certificates of attendance. For obvious reasons, laboratory courses would be impossible to operate.

Consideration of this program gives rise to certain important questions. When should these courses be planned? What season of the year? Daytime or evening? Weekdays only? Full or half-day classes? Should a fee be charged? If so, what should it be? Who should constitute the teaching staff?

A canvass of the members of a county pharmaceutical association in Pennsylvania indicates that the pharmacists who recognize the need for such a course of instruction prefer that it be presented from 8:30 to 11:30 in the morning during the first four days of the week, and that it should be held for two weeks, in June or early July.

If the program occupies two weeks in a town or city 75 or more miles from the main campus, there is the matter of living expenses for the instructional staff. In addition, a course of this nature requires considerable preparation of material with special attention being given to the time factor. The entire program must be dovetailed perfectly. Thus, besides the actual presentation time of the lecture material, the instructor will spend an equal amount of time planning the ideal arrangement of subject matter. Salaries, living and travel expenses must be translated into necessary fees for the course. However, the pharmacists referred to above have indicated their willingness to pay for their instruction. Actually, since things that cost money are appreciated, a fee would probably increase attendance.

### The Curriculum

Assuming that the pharmacy college could arrange a program with a skilled teaching staff, in suitable quarters, and for a reasonable tuition fee, what subjects could and should be offered? Probably one of the greatest needs of practicing pharmacists today is a review of organic chemistry. This is necessary to comprehend fully not only the pharmaceutical chemistry but also the related pharmacology of the antihistamine drugs, the hypnotics, the sulfa drugs, and the steroid compounds. Merely knowing the trade names of the antihistamines without understanding the chemical structure is useless to the pharmacist when the physician asks him to suggest another type of compound.

A review of organic chemistry, which includes both aliphatic and aromatic compounds, is prerequisite to a consideration of the antihistamines. Elementary instruction in hydrogen-ion concentration is necessary for the proper interpretation of buffered solutions; similarly, a review of bacteriological classification and staining reactions should precede a discussion on the effects of antibiotics on rickettsiae, viruses, acid-fast bacteria, and Gram-positive cocci.

The course of training, then, might encompass the following: a review of both aliphatic and aromatic organic chemistry; *p*H determination and buffered and isotonic solutions; pharmaceutical wetting, masking, coloring, flavoring, and emulsifying agents; fundamentals of allergy and the antihistamine drugs; antibiotics; newer biologicals; vitamins; hormones; cardioactive glycosides; radioactivity; hypnotics; insecticides; rodenticides, and herbicides; as well as many other subjects. It would be advantageous to present related subjects on the same day; in fact, if the chemistry of the hypnotic drugs could be given simultaneously with the pharmacological aspects, the total effect would be more forceful. If the lecturers attended each others' classes during the program and made pertinent comments, a closer relationship between pharmacology, pharmaceutical chemistry, the various biological sciences, and pharmacy would be definitely emphasized.

In summary, the retail pharmacist is aware of his need for further training, he is willing to attend postgraduate classes if they are conducted for his background level, he expects to pay a reasonable fee for this course of instruction, he prefers to attend such classes in the summertime on Monday through Thursday, in half-day sessions from 8:30 a.m. until 11:30 a.m. If practicing pharmacists were to take advantage of an abbreviated postgraduate program offered by their colleges of pharmacy, they would occupy more efficiently the position they now hold in the public health professions.

For the past decade, and particularly within the past five years, the upsurge of new pharmaceuticals has been so great as to engulf the pharmacist and pharmacy. The problem of saving, much less indexing, this vast list of new specialties has been too great, except in those rare instances where sufficient help has been available to permit the preparation of a special file. In the majority of stores, unfortunately, the filing and indexing has been largely a mental process, with the staff required to merely remember, as best it could, the pertinent facts about each new item. Obviously, this technique leaves much to be desired.

Innumerable pharmaceutical publications have made some effort, and all of them have been sincere, to allay this terrific work load for the pharmacist. Despite these "feature departments" in a variety of journals, there has been no method yet devised that is practical, and at the same time, fast, and efficient. The bulk of these methods have involved clipping the notice from the Journal and then filing the clipping. As a matter of fact, such a method has been employed in the past by THIS JOURNAL. It has, obviously, one major fault, and that is that the pharmacist, or one in his employ, must keep up to date, constantly, because if a week or a month is missed, the backlog is so great that the time lost is never made up.

In an effort to speed the filing and systemizing of these new product names, descriptions, indications, dosage and other pertinent information, this issue of the JOURNAL OF THE AMERICAN PHARMACEUTICAL ASSOCIATION, *Practical Pharmacy Edition*, institutes a new method of announcing new products. In the future, this feature will appear at the center insert of each issue, so that the pharmacist can simply remove the complete eight pages, and file them in a loose-leaf book. These pages are marked at the inside edge, so that holes may be punched to fit any ordinary 8½ x 11 ring book. Each item will be listed alphabetically by title. On the last page of each month's insert a complete six months' index will be run, so that the pharmacist may quickly turn to his last issue index and find the product, month, and page number listed after the name of the product. In addition, to facilitate the finding of a product referred to as "that new product by So-and-So Company," each item will be cross-indexed under the name of the manufacturer in this copyrighted feature.

This comprehensive index will cover a six-month period only, because in the opinion of the editors a product on the market for six months can no longer be considered "new," and secondly, national price books and product directories are now issued every six months rather than annually as in the past with the Red Book published in the fall and the Blue Book in early spring.

For the present, at least, this new monthly feature will appear as an eight-page insert. Should more new products enter the market it will be expanded to insure full coverage. Manufacturers interested in bringing their new items to the attention of the pharmacists throughout the country are urged to send their new listings to the editors, in copy similar to that printed, i.e., name, description, indications, administration, form supplied, and firm name. By following that format, a standard presentation will be established for all companies. Pharmacists, in turn, are urged to comment on the new method, and to suggest any improvements that will make this new department even more serviceable to them.

*at last!*
*a new*
*prescription*
*products*
*department*
*that you can*
*really use!*

## ABBOCILLIN-DC

*Description:* An aqueous suspension, each 1 cc. providing 600,000 units of penicillin G procaine.

*Indications:* In treatment of streptococcic, staphylococcic, and pneumococcic infections; gonorrhea, syphilis, and Vincent's infection; and as an adjunct to antisera in diphtheria.

*Administration:* 1 cc. by deep intramuscular injection every 48 hours. In more serious cases, 1 cc. every 12 to 24 hours.

*Form Supplied:* In single units of 1 cc., with disposable cartridge syringe, and in boxes of 12 units.

*Source:* Abbott Laboratories, N. Chicago, Ill.

## AUREOMYCIN INTRAVENOUS (VETERINARY)

*Description:* Aureomycin hydrochloride crystalline.

*Indications:* For use in wide variety of diseases in cattle, horses, and small animals.

*Administration:* As directed by veterinarian.

*Form Supplied:* In vials of 100 mg. and 500 mg., with diluent.

*Source:* Lederle Laboratories Division, American Cyanamid Company, New York, 20, N. Y.

## AUREOMYCIN PHARYNGETS

*Description:* Orange-flavored lozenges, each containing 15 mg. of aureomycin hydrochloride crystalline with methylparaben and propylparaben.

*Indications:* Designed to dissolve slowly in mouth in treatment of Gram-negative, Gram-positive, and mixed bacterial infections of mouth and oropharynx. In severe oral infections may be prescribed with systemic aureomycin therapy.

*Administration:* By direction of physician or dentist.

*Form Supplied:* Boxes of ten.

*Source:* Lederle Laboratories Division, American Cyanamid Company, New York 20, N. Y.

## BENZESTROL with Phenobarbital

*Description:* Tablets, each containing 1 mg. benzestrol and 16 mg. phenobarbital.

*Indications:* For treatment of menopausal cases requiring sedation as well as estrogen administration.

*Administration:* As directed by physician.

*Form Supplied:* Bottles of 100.

*Source:* Schieffelin & Co., New York.

## CHLOROMYCETIN CAPSULES

*Description:* Capsules, each containing 100 mg. of chloramphenicol.

*Indications:* Specific therapeutic use in wide range of bacterial, viral, and rickettsial infections.

*Administration:* As directed by physician; 100-mg. capsules provide greater flexibility of dosage.

*Form Supplied:* Bottles of 25 and 100 capsules.

*Source:* Parke, Davis & Co., Detroit, Mich.

## CLUSIVOL

*Description:* Capsules, containing fat- and water-soluble vitamins with essential minerals.

*Indications:* For prevention of vitamin and iron deficiencies, especially in aged patients or for preoperative or postoperative use.

*Administration:* One capsule twice daily, or as directed.

*Form Supplied:* Bottles of 100 capsules.

*Source:* Ayerst, McKenna & Harrison Ltd., Rouses Point, N. Y.

## DROMORAN HYDROBROMIDE

*Description:* Synthetic analgesic with properties similar to those of morphine, meperidine, and methadon.

*Indications:* Relief of severe pain, especially intractable pain due to cancer and other tumors, severe trauma, biliary and renal colic, gangrene, bursitis, neuritis, rheumatoid arthritis, myocardial infarction, sciatica, tabes dorsalis and radiculitis; also preoperative and postoperative pain relief.

*Administration:* From 2.5 to 5 mg. (1/2 to 1 cc.) by subcutaneous injection.

*Form Supplied:* 1-cc. ampuls, 5 mg.; boxes of 12 and 100, and in 10-cc. multiple-dose vials, 5 mg. per cc.

*Source:* Hoffmann-LaRoche, Inc., Nutley, N. J.

## GYNETONE INJECTION

*Description:* Each cc. contains 1.0 mg. estradiol benzoate and 20.0 testosterone propionate in sesame oil.

*Indications:* Single dose form of estrogenic and androgenic steroids in a typically suitable ratio for treatment of menopausal symptoms.

*Administration:* Mild cases of menopausal syndromes: 0.5 cc. two to three times weekly until symptoms are well controlled. Dosage is then reduced to ascertain minimum requirement. Maintenance therapy with Estinyl, Progynon or Progynon Buccal tablets may be preferred. Moderate cases: Treated in same manner, using 1.0 cc. two to three times weekly as initial dosage. Severe cases (including

# PRESCRIPTION PRODUCTS

*This monthly listing of new prescription products is designed for easy insertion in a ring binder. Simply lift out the eight pages, punch holes where marked, and slip into an 8½ x 11 binder. A continuing six month index appears on the sixth and seventh pages for quick reference. Manufacturers are urged to send their new product information to the Executive Editor, AMERICAN PHARMACEUTICAL ASSOCIATION, 2215 Constitution Avenue, N.W., Washington, D.C., for inclusion in this free copyrighted editorial service.*

surgical menopause, roentgen castration, and cases manifesting involutional melancholia or other psychic disturbances): 1.5 cc. two to three times weekly as initial dosage.

*Form supplied:* 10-cc. multiple dose vial, containing 1.0 mg. estradiol benzoate plus 20.0 testosterone propionate in each cc., boxes of 1 and 6 vials.

*Source:* Schering Corp., Bloomfield, N. J.

## GYNETONE TABLETS

*Description:* Tablets, each containing estradiol and methyltestosterone in the ratio of 1:10; namely, 0.5 mg. estradiol and 5.0 methyltestosterone, or 1.0 mg. estradiol and 10.0 methyltestosterone.

*Indications:* Single dose form of estrogenic and androgenic steroids in a suitable ratio for treatment of the menopause.

*Administration:* Dosage with higher potency tablet (1 mg. estradiol plus 10 mg. methyltestosterone) should be limited to one tablet daily. If the lower dosage tablet (0.5 mg. estradiol plus 5.0 mg. methyltestosterone) is used, one or two tablets may be given daily, gradually reducing the amount and frequency of the dosage as symptoms are controlled. When possible, gradual reduction of dosage of either strength tablet is recommended.

*Form Supplied:* Bottles of 30 and 100.

*Source:* Schering Corp., Bloomfield, N. J.

## KOLANTYL

*Description:* Synthetic compound with direct smooth muscle and parasympathetic depressant properties. Each tablet contains Bentyl hydrochloride, 5 mg.; Aluminum Hydroxide Gel, Dried, 400 mg.; Magnesium oxide, heavy, 200 mg.; Sodium lauryl sulfate, 25 mg.; and Methycellulose, 100 mg.

*Indications:* Oral treatment of peptic ulcer and relief of symptoms caused by gastric hyperacidity with or without a tendency toward pylorospasm.

*Administration:* One or two tablets every three hours as needed for relief.

*Form Supplied:* Bottles of 100.

*Source:* Wm. S. Merrell Co., Cincinnati, Ohio.

## LENTOVET 600 SUSPENSION

*Description:* An aqueous injection for veterinary use, each cc. containing 600,000 units of crystalline procaine penicillin G.

*Indications:* In penicillin-sensitive bacterial diseases.

*Administration:* By intramuscular injection only. For dogs, intramuscular injection of 100,000 units every 24 hours. In larger animals, daily minimum dose of 2000 units per pound of body weight.

*Form Supplied:* In 1-cc. Tubex, with sterile needle.

*Source:* Wyeth, Inc., Philadelphia, Pa.

## METHOSTAN

*Description:* Brand of methandriol (methylandrostene-diol, 17 alpha-methyl-delta$^5$-androstene-3 beta, 17 beta-diol); in 25-mg. tablets, and in aqueous suspension containing 50 mg. of pure minute crystals per cc.

*Indications:* In retarded growth and constitutional diseases accompanied by protein wastage when such conditions do not respond to diet or to more specific therapy.

*Administration:* Adults: 10 to 40 mg. daily, with either dosage form. Children: 5 to 10 mg. daily or less frequently until susceptibility to androgenic effects has been ruled out.

*Form Supplied:* Aqueous suspension: Vials of 10 cc., boxes of 1 and 6 vials. Tablets: Bottles of 30 and 100.

*Source:* Schering Corporation, Bloomfield, N. J.

## OMNI-BETA IMPROVED

*Description:* Orange-flavored liquid, each teaspoonful containing: thiamine hydrochloride, 2.0 mg.; riboflavin, 2.0 mg.; niacinamide, 10.0 mg.; pantothenic acid, 2.0 mg.; pyridoxine hydrochloride, 0.2 mg.; choline, 20.0 mg.; inositol, 10.0 mg.; and secondary fraction derived from 10 Gm. of fresh liver.

*Indications:* Given therapeutically or prophylactically in vitamin B deficiencies, increased nutritional requirements for vitamin B factors or where there is abnormal loss of vitamin B factors through increased excretion, before and after surgical procedures, and during and after administration of sulfonamide.

***(Continued on next page)***

*Administration:* Adults: Two teaspoonfuls or more daily as directed. More if necessary. Infants and children: 1/2 to 1 teaspoonful, one or more times daily.

*Form Supplied:* Bottles of 8 and 16 fluidounces and 1 gallon.

*Source:* William R. Warner and Co., Inc., New York, N. Y.

## OTODYNE

*Description:* Stable, hygroscopic analgesic ear drops containing Zolomine 1%, Eucupin dihydrochloride, 0.1%, and polyethylene glycol, 9. S.

*Indications:* Rapid and sustained local relief of pain and itching associated with certain disorders of the middle and external ear.

*Administration:* As directed by physician.

*Form Supplied:* Dropper bottles of 1/2 fluidounce (15 cc.).

*Source:* White Laboratories, Inc., Newark, N. J.

## PENICILLIN TABLETS WITH TRIPLE SULFONAMIDES

*Description:* Tablets, each containing 100,000 units of crystalline potassium penicillin and 0.167 Gm. each of sulfadiazine, sulfamethazine, and sulfamerazine.

*Indications:* Mild streptococcic, pneumococcic, and gonococcic infection.

*Administration:* As indicated by physician.

*Form Supplied:* Bottles of 100 and 1000 tablets.

*Source:* Lederle Laboratories Division, American Cyanamid Company, New York, N. Y.

## PENICOMBISUL

*Description:* Tablets, each containing: crystalline potassium penicillin-G, 100,000 units, and 0.166 Gm. each of sulfacetimide, sulfadiazine, and sulfamerazine, a total of 0.5 Gm. of sulfonamides.

*Indications:* In treatment of pneumonias.

*Administration:* Adults and older children: Six tablets initially followed by two tablets every four hours until temperature, pulse, and respiration have been normal for 48 hours. Six to eight tablets then may be given in divided doses for two or three days. Children up to fifty pounds: Average daily dose is one-quarter to one-half tablet per kilogram of body weight. Of the calculated dose, one-third is given initially and one-sixth thereafter every four hours until temperature, pulse, and respiration have been normal for 48 hours. The dose may then be reduced to two-thirds or one-half the original maintenance dose for two or three days more.

Tablets should be prescribed from one-half to one hour, before or two or three hours after, eating.

*Form Supplied:* In bottles of 24 and 100 tablets.

*Source:* Schering Corp., Bloomfield, N. J.

## PROFERRIN

*Description:* Sterile solution of saccharated iron oxide containing the equivalent of 20 mg. of available iron per each cc.

*Indications:* Indicated for therapy in iron deficiency anemia. Said to circumvent impaired intestinal absorption of oral iron.

*Administration:* Slow intravenous injection.

*Form Supplied:* 20-cc. vials.

*Source:* Sharp & Dohme, Inc., Philadelphia, Pa.

## PROMETRON

*Description:* An oil solution, each cc. containing: estradiol benzoate, 2.5 mg., and crystalline progesterone, 12.5 mg.

*Indications:* Treatment of secondary amenorrhea of short duration due to endocrine deficiency.

*Administration:* Intramuscular injection of 1 cc., followed the next day by the same dose. Complete treatment is two injections.

*Form Supplied:* Single boxes of two 1-cc. ampuls, and in packages of three boxes.

*Source:* Schering Corp., Bloomfield, N. J.

## SULFOSE

*Description:* A triple sulfonamide suspension containing: 0.166 Gm. each of sulfadiazine, sulfamerazine, and sulfamethazine per each 5-cc. teaspoonful, and alumina gel as a suspending agent. Each teaspoonful contains 0.5 Gm. total sulfonamides.

*Indications:* Supplies adequate and protracted sulfonamide levels in the blood in sulfonamide therapy.

*Administration:* Two and one-half tablespoonfuls initially, followed by two teaspoonfuls every six hours. Children: Reduce dosage according to body weight.

*Form Supplied:* Bottles of 1 pint.

*Source:* Wyeth, Inc., Philadelphia, Pa.

## TRIMETOSE

*Description:* A liquid, each 4-cc. teaspoonful containing: trimeton maleate, 7.5 mg.; ammonium chloride, 104.8 mg.; sodium citrate, 43.0 mg.; and chloroform, 17.5 mg. Contains 7 per cent alcohol.

*Indications:* In control of coughs due to colds.
*Administration:* Adults: One to two teaspoonfuls three to four times daily. Children: Six to twelve years, one-half adult dosage; under six years, as prescribed by physician.
*Form Supplied:* Bottles of 16 ounces.
*Source:* Schering Corp., Bloomfield, N. J.

### TRISULFALLIN

*Description:* Sulfa-penicillin compound containing Sulfadiazine, Sulfamethazine, and Sulfamerazine with potassium penicillin G.
*Indications:* Treatment of infections in which the oral administration of penicillin and sulfonamides is indicated.
*Administration:* Orally, as directed by physician.
*Form Supplied:* Bottles of 100, 500, and 1000.
*Source:* Irwin, Neisler & Co., Decatur, Ill.

### VERACOLATE

*Description:* Tablets, each containing: bile salts, 1.07 gr.; cascara sagrada extract, 1.00 gr.; phenolphthalein, 0.50 gr.; and oleoresin capsicum, 0.05 min.
*Indications:* Indicated in diseases of the biliary tract uncomplicated with acute hepatitis, functional hepatic insufficiency, chronic passive congestion of the liver, and adjunct for increased absorption of fat-soluble vitamins. Contraindicated in presence of complete biliary obstruction, acute hepatitis, peptic ulcer, or colitis.
*Administration:* One tablet three times a day or two tablets at bedtime.
*Form Supplied:* Bottles of 50 and 100 tablets.
*Source:* Marcy Laboratories, Inc., New York.

### VERACOLATE MODIFIED

*Description:* Tablets modified, each containing: bile salts, 1.00 gr.; phenolphthalein, 0.25 gr.; pepsin, 2.00 gr.; pancreatin, 2.00 gr.; and oleoresin capsicum, 0.025 min.
*Indications:* Same as for Veracolate.
*Administration:* Two tablets two hours after meals.
*Form Supplied:* Bottles of 50 and 100 tablets.
*Source:* Marcy Laboratories, Inc., New York.

### VITAMIN K ANALOGUE

*Description:* A solution, each 2 cc. containing 75 mg. of tetrasodium 2-methyl-1,4-naphthohydroquinone diphosphoric ester.
*Form Supplied:* Sterile solution in 2-cc. ampules.
*Action:* Indicated for counteracting overdosage phenomena of Dicumarol.
*Administration:* Two cc. (75 mg.) intravenously.
*Source:* The Upjohn Co., Kalamazoo, Mich.

### WYCHOL CAPSULES (Companion item to Wychol syrup)

*Description:* Capsules, each containing: choline bitartrate, 0.5 Gm., and inositol, 0.036 Gm.
*Indications:* Lipotropic therapy for use in diseases such as liver cirrhosis and arteriosclerosis.
*Administration:* Six capsules daily in low dosage schedules (equivalent to $1^1/_2$ teaspoonfuls of Wychol syrup). Syrup is more convenient in high dosage schedules.
*Form Supplied:* Bottles of 100 and 100 capsules.
*Source:* Wyeth, Inc., Philadelphia, Pa.

### WYDASE VETERINARY

*Description:* Lyophilized hyaluronidase in veterinary form.
*Indications:* Promotes absorption of subcutaneously injected fluids in animals.
*Administration:* As directed.
*Form Supplied:* Vitals of 150 TR (Turbidity-reducing) units.
*Source:* Wyeth, Inc., Philadelphia, Pa.

## *Other New Products*

**(Chemicals, clinical trial drugs, diagnostic aids, and equipment)**

### New Dropper Bottles

A new dropper bottle containing an unbreakable pipette of plastic has been announced by the Armstrong Cork Company, Lancaster, Pa.

Advantages of the plastic pipette are: elimination of breakage in transit, assembly, and use; has no effect on *p*H of solutions; the moisture-repellent characteristics cause the inside diameter of the pipette to determine the size of the drop.

The pipette conforms to U. S. P. specifications for delivery of medicine droppers. The bottles are available in $^1/_4$, $^1/_2$, 1, and 2-ounce sizes.

### Liquid and Semi-Paste Mixer

A new 1000-gallon direct motor driven liquid and semi-paste mixer has been designed by Charles Ross & Son Company, Brooklyn, N. Y.

The mixer is available in sizes of from 50 to 1500 gallons or larger. The mixer, with slight changes in the stirrer arrangement, can also be utilized as an agitated storage tank. Paste or liquid type stirrers can be furnished.

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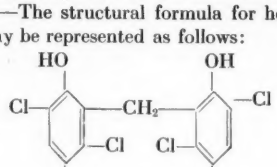
# NNR

PRODUCTS RECENTLY ACCEPTED BY THE A. M. A. COUNCIL ON PHARMACY AND CHEMISTRY

*Council descriptions of new drug products only are published regularly in* THIS JOURNAL *as they are accepted. Rules upon which the Council bases its action appeared in the July (7:320) 1946 issue, and may be secured in pamphlet form upon request to the Secretary, Council on Pharmacy and Chemistry, American Medical Association, 535 N. Dearborn St., Chicago 10, Ill.*

**HEXACHLOROPHENE.—Gamophen** (Ethicon).—Hex-O-San (Cole).—$C_{13}H_6Cl_6O_2$.—M. W. 406.92.—2,2′-Methylenebis-(3,5,6-trichloro)phenol. —2,2′-Dihydroxy-3,5,6,3′,5′,6′-hexachlorodiphenylmethane.—The structural formula for hexachlorophene may be represented as follows:




*Actions and Uses.*—Hexachlorophene is incorporated in soaps, detergents, oils and other vehicles for topical application to reduce the numbers and to inhibit the metabolism of microorganisms which occur naturally and pathogenically in the skin bacterial flora.

Residual amounts of hexachlorophene, which are adsorbed on the skin, maintain a reduction in numbers of bacteria. Optimum results are obtained only with *exclusive* application of the agent to the skin surface; substitution of other cleansing agents, including water, removes the adsorbed hexachlorophene with a resultant rapid increase in numbers and metabolism of microorganisms. The activity of hexachlorophene, like that of other antibacterial agents, is considerably reduced by blood serum and other organic matter.

Hexachlorophene is effective against gram-positive bacteria; the gram-negative organisms are much more resistant to its action. No evidence is presently available concerning its efficacy against acid-fast bacteria, fungi, bacterial spores, virus or spirochetes.

Products containing hexachlorophene are used for preoperative scrubbing, and preoperative and postoperative preparation of patients' skin. When used continually hexachlorophene is also an effective prophylactic agent in decreasing the incidence and severity of pyogenic skin infections including carbuncles, furuncles, miliaria, ammoniacal dermatitis, impetigo and seborrheic dermatitis ("Cradle cap"). Neither hexachlorophene nor any other chemical agent should be relied on as a substitute for mechanical cleansing of the skin.

*Dosage.*—For use as an antibacterial agent hexachlorophene may be incorporated in a number of vehicles, viz., soap, detergents, creams and oils. Concentrations of 2 to 3 per cent (anhydrous weight basis) are efficacious in reducing the number of microorganisms inherent in the skin bacterial flora. Concentrations in excess of 3 per cent have not yet been shown to be more effective.

*Physical Properties:* Hexachlorophene is an odorless (or has a slight, phenolic odor), white to light tan, crystalline powder, which melts between 161° and 167° C. It is freely soluble in acetone, alcohol and ether; soluble in chloroform, and insolubl in water.

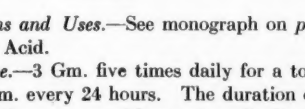
[For more detailed information regarding action and uses and for tests and standards, see *J. Am. Med. Assoc.*, 145: 563 (1951).]

*Surgical Soap Hex-O-San:* 3.78-liter and 18.9-liter cans and 56.7-liter, 113.5-liter and 208.1-liter drums. A soap containing 2 per cent hexachlorophene. Cole Laboratories, Inc., Long Island City, N. Y.

*Surgical Soap Gamophen:* 127.5-Gm. cakes. A soap containing 2 per cent hexachlorophene. Ethicon Suture Laboratories, Inc., New Brunswick, N. J.

*Germa-Medica Surgical Soap Hexachlorophene:* 3.78-liter bottles. A soap containing 2.5 per cent hexachlorophene. U. S. Trademark 213,093. Huntington Laboratories, Inc., Huntington, Ind.

**SODIUM *p*-AMINOSALICYLATE.—Pasem Sodium**—(Massengill).




*Actions and Uses.*—See monograph on *p*-Aminosalicylic Acid.

*Dosage.*—3 Gm. five times daily for a total dose of 15 Gm. every 24 hours. The duration of treatment is the same as with *p*-aminosalicylic acid.

*Physical Properties:* Sodium *p*-aminosalicylate is a white to pale yellow, practically odorless, crystalline powder. It is freely soluble in water, sparingly soluble in alcohol and practically insoluble in ether. One gram dissolved in 50 ml. of water to give a clear solution which is colorless or nearly so. The solution has a pH between 7.0 and 7.5.

[For more detailed information regarding action and uses and for tests and standards, see *J. Am. Med. Assoc.*, 145: 905 (1951).]

*Powder Sodium Para-Aminosalicylate:* 454-Gm. bottles. American Pharmaceutical Company, New York, N. Y.

*Tablets Sodium Para-Aminosalicylate:* 0.5 Gm. American Pharmaceutical Company, New York, N. Y.

**Capsules Pasem Sodium:** 0.5 Gm. S. E. Massengill Company, Bristol, Tenn.

# Brief Facts about Arthritis...

## MAN'S GREATEST CRIPPLER

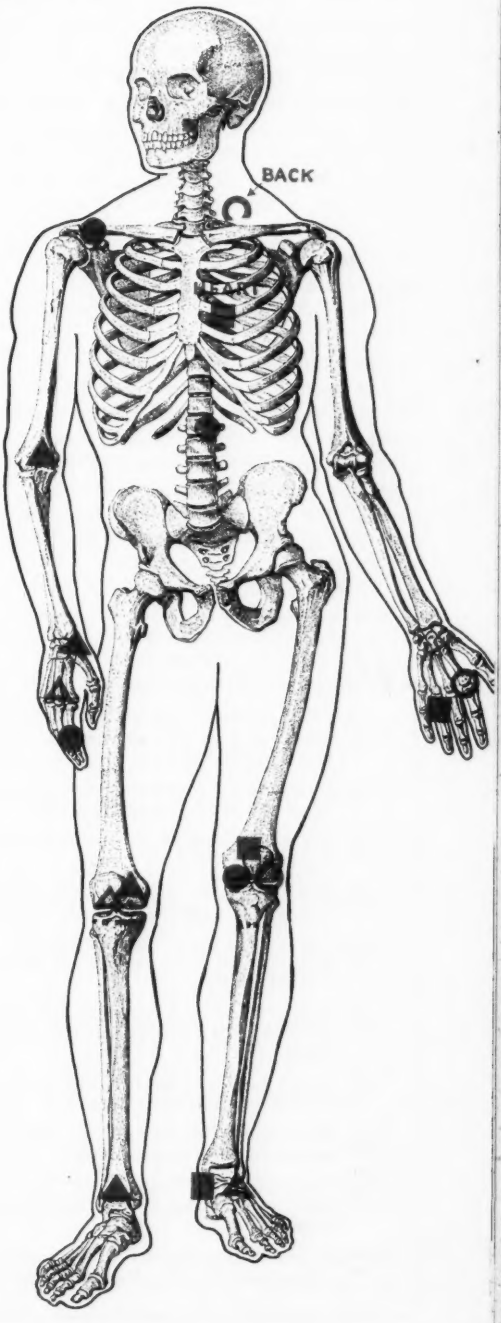
*Seven and a half million Americans—and untold millions elsewhere in the world—suffer from some form of this disease. Here are simple, straightforward facts about it that you should know.*

WITH the advent of ACTH and Cortisone, more public attention has been directed toward arthritis and other rheumatic diseases than ever before. Today, for the first time, there is considerably more hope for the seven and a half million sufferers in the nation, but there is still a long way to go.

These people—and millions elsewhere—are far more fortunate than the generations that have preceded them, for until now there was little that could be done to relieve the agonizing pain. Even The Java Ape Man had arthritis to a degree, for his bones show the crusted overgrowth signifying the condition. The bones of dinosaurs and those of Eohippus, the dwarf horse, bear similar crusts, proof that they too suffered in pain. As a matter of fact, human remains from all ages seem to bear the marks of arthritis, according to The Arthritis and Rheumatism Foundation, in the Public Affairs Pamphlet "Arthritis and the Miracle Drugs," from which the material on these pages has been adapted.

*(Continued on page 230)*

| TYPE OF ARTHRITIS | WHO GETS IT | WHERE IT BEGINS |
|---|---|---|
| RHEUMATOID | MORE WOMEN THAN MEN FROM 35-40 YEARS OLD | ▲ |
| OSTEOARTHRITIS | OLDER PEOPLE | ● |
| ARTHRITIS FROM INJURY, INFECTION | ALL AGES | AT SITE OF INJURY, INFECTION |
| RHEUMATIC FEVER | YOUNG PEOPLE AND CHILDREN | ■ |
| GOUT | MEN OVER 30 | △ |
| FIBROSITIS | ALL AGES | ○ |
| PSYCHOGENIC ARTHRITIS | ALL AGES | STIFF, PAINFUL MUSCLES AND TENDONS |



**Arthritis** • • • • • • • • • • • *from page 229*

### Rheumatoid Arthritis

Rheumatoid arthritis is, by all odds, the most crippling of the two types of the disease. It generally strikes between the ages of 25 to 50, while osteoarthritis generally occurs in old age, or as a result of heavy wear and tear on the joints. Rheumatoid usually starts in one joint, such as the hands or feet, knees, ankles, elbows, and wrists. Sometimes slight swellings come and go over a period of years, and then, without apparent warning, they return, affecting one or more joints, often in different parts of the body, and stay for months or many years. Such a recurrence does not mean, however, that the person is sentenced to a life of pain. Often the condition stops as quickly as it began, and for no apparent reason.

Rheumatoid arthritis is described as "a chronic inflammation of the connective tissue of joints and their sheaths which bind muscles and other tissue together." It is not merely a disease of the joints, but a general and systematic illness that may involve the heart, nerves, muscles, and other tissues. The cause, as yet, is unknown, but hundreds of research scientists are constantly working to find out. Naturally, there are a wide variety of theories as to the cause, ranging from infection, metabolism, emotional instability, and allergy. Yet, despite this wide range of thought, progress is being made in the search for the major cause.

Successful treatment has been reported in many cases, particularly through the ACTH and Cortisone research. However, more clinical work, and greater production of these two products, as well as several other promising drugs, must be accomplished before any definite hope can be held out to millions who suffer from rheumatoid arthritis.

### Osteoarthritis

Osteoarthritis is quite different from the rheumatoid type, for it is merely a disease of the aging, or general degeneration and breakdown caused by advancing age. Although it is responsible for an incalculable number of aches and pains, and discomfort in the extreme, it is considerably less serious than the other type of arthritis.

There are several distinct differences between the two. While rheumatoid arthritis often progresses at a fast rate, osteoarthritis moves slowly. Moreover, clinical study has shown that the new drugs, so promising with the rheumatoid type, have far less effect on this type. Exercise for osteoarthritis joints makes the stiffness worse, so rest of the affected areas is demanded if relief is to come. Hot soaks, heat lamp treatments, and massage, and splints and braces often help people with this condition, and in some instances operations can correct the joint defects. In any event, osteoarthritis is not nearly as crippling, nor as severe, and much can be done to reduce the severity. An optimistic attitude is one of the best treatments, according to specialists in the field, and since there is considerable chance of improvement, this optimistic attitude is easily justified.

### Rheumatic Fever

One of the more significant kinds of joint diseases, the arthritis resulting from rheumatic fever is generally short lived and clears up completely after the illness. However, its effect on the heart is extremely important and usually permanent. Moreover, children may suffer repeated attacks of rheumatic fever, thus making the condition even more damaging. The arthritic condition may be slight and transient and doctors now theorize that rheumatic fever is caused by or follows a streptococcal infection.

Since ACTH and Cortisone have shown great promise in relieving the arthritis that accompanies the condition, current research is being

**10 RULES FOR THE ARTHRITIC**

1. Don't attempt self-medication. See your physician and follow orders.
2. Don't be fear ridden. Enough is known to permit normal activities.
3. Try to live free of tension, and get plenty of rest and sleep.
4. Don't experiment with your diet. Consult your physician on all foods.
5. Get plenty of sunshine, but have the physician specify degree of heat treatments.
6. Avoid strain and pressure on the affected parts. Follow all exercises implicitly.
7. Avoid cold, wet weather and chills. In bad weather, keep warm and dry.
8. Don't overeat or exceed your normal weight for your age and height.
9. Don't listen to "Old Wives' Tales" and fancy cures. Your physician knows best.
10. If you don't respond to treatment, adjust yourself, and don't lose hope.

directed toward the possibility that they can be helpful in preventing heart damage in people suffering from rheumatic fever.

### Gout

Mainly a disease of men, and of people over 30, this is another medically puzzling form of arthritis. However, colchinine has been found to be successful in a great number of cases. Other new drugs also show hope, and aspirin helps pain.

Gout is sporadic, coming at odd intervals, and lasting for varying periods of time. Generally, it attacks the joints of the great toe, but it has also been known to strike at other joints of the hands, feet, and ankles. Gout too is more hazardous than merely causing pain, for it has often affected the kidneys, heart, and brain of men who have borne its pain for an extended period of years.

What is known about gout is considerable, but the cause has not definitely been fixed. Overindulgence in alcohol and food seems to account for a large number of cases, and emotional stress has been found to have some bearing on the attacks. However, there has been no way found for the sufferer to avoid, or even to foresee, an attack.

### Other Forms of Arthritis

Milder in total effect, but no less painful, are the other forms of arthritis caused by injury, infection, or emotional disturbance. Fortunately, arthritis as a result of infection is on the wane because of the success of the antibiotics in treating infections. Psychogenic forms are the result of worry, fear, grief, and other emotional upheavals.

In World War II this was one of the commonest types of arthritis.

Fibrositis is another large class, covering rheumatic pains in the muscles, tendons, and other tissues in the back, shoulders, thighs, and hands. A painful stiff neck, or pains on turning, stooping, or some similar movement may be symptoms of fibrositis. These ailments may be painful, and intermittent, but they never cripple or deform, as do the more serious types of arthritis. Rest, inactivity, heat, and aspirin generally relieve the pain and speed recovery.

The future is far more promising for arthritic sufferers than ever before, but it still remains for all sufferers to see their doctors and abide rigidly by the directions that they give. Rest, proper diet, hot packs, and aspirin still head the list of common treatment, but the new drugs now in use, and those now in experimental stages, may well signal the final release from pain for the hundreds of millions of sufferers the world over.

## Public Health Service Grants to Aid Cancer Control

The search for chemicals to control cancer by killing cancer cells in the body without harming normal tissues will be continued under Public Health Service grants announced recently.

Support for extensive chemotherapy studies was included in grants totaling $1,305,930, awarded to assist cancer research in 62 hospitals, universities, and other non-Federal institutions in 24 states, the District of Columbia, and three foreign countries.

The grants were made by the Cancer Institute of the National Institutes of Health. They were approved by Dr. Leonard A. Scheele, Surgeon General of the Public Health Service, upon recommendation of the National Advisory Cancer Council.

Representing clinical as well as laboratory attacks on the problem, cancer chemotherapy studies in 13 research centers and hospitals received assistance. To be continued by a grant to The Children's Medical Center, Boston, are Dr. Sidney Farber's studies on human cancer patients, particularly children with acute leukemia. In treating these cases Doctor Farber is using anti-folics and other compounds that have been tested on malignancies in animals and have been found effective.

The screening of folic acid, A-methopterin and other anti-leukemic agents will be carried forward by Dr. Howard E. Skipper through a grant to the Southern Research Institute in Birmingham.

Attempts to synthesize colchicine, capable of stopping cell division and slowing down tumor growth, will be extended through a grant to Dr. C. David Gutsche at Washington University, St. Louis. Colchicine has never been manufactured in the laboratory. In its present form colchicine is not satisfactory for treatment, since it is too toxic when given in doses large enough to inhibit tumors. Doctor Gutsche hopes to overcome the factor of toxicity and to solve several other problems affecting the drug's usefulness. He seeks to determine its chemical structure and then synthesize either colchicine or its components. In the process he expects to find among the new synthetic compounds some which will keep the tumor-damaging powers of the parent substance, colchicine, but lose the harmful toxic effect.

In other areas of research, grants were made for special studies on genetic mutations and on the cause of stomach cancer.

# what medicine has learned in KOREA

By Col. Lawrence A. Potter

**Assistant Chief, Medical Plans and Operations Division, Office of the Surgeon General, Department of the Army.**

***Aided immeasurably by drugs that were unknown at the start of World War II, the military medical services have kept the casualty rates low, according to this report by Col. Potter, presented first at the recent meeting of the American Pharmaceutical Manufacturer's Association in Florida. This article is the first official publication of the full Korean medical experience.***

The current field medical support available in the Far East for support of the 8th Army in Korea now consists of three (3) Evacuation Hospitals (SM), five (5) Mobile Surgical Hospitals, four (4) Field Hospitals, five (5) Separate Ambulance Companies, two (2) Separate Collecting Companies, two (2) Separate Clearing Companies, one (1) Army Medical Depot, two (2) 500-bed Station Hospitals, and the required number of detachments of various sorts. In addition there are three (3) Navy hospital ships in the area prepared to support the operation at any time. It should be pointed out that a Navy hospital ship is truly a floating hospital in contradistinction to the so-called hospital ships that the Army operated during World War II and which should more appropriately have been designated ambulance ships. During the period the 8th Army was stationed within the Naktong perimeter, a Navy hospital ship was docked in Pusan where the hospital trains could be brought right on to the dock and the patients unloaded from the train and with a few steps be placed on the hospital ship. When these patients were ready for evacuation they were brought back off the hospital ship, moved by train to the air field and flown to Japan. There are also in support of the UN forces in Korea, a Swedish Red Cross hospital, roughly the equivalent of one-half a Field Hospital, and an Indian medical unit, roughly the equivalent of a Field Hospital.

Units other than U. S. forces for which the medical service of the U. S. Army is providing evacuation and hospitalization, are two (2) British brigades, a Turkish brigade and forces roughly the equivalent of an American battalion from France, the Netherlands, Greece, the Philippines, Thailand, Belgium, Australia, Canada, and New Zealand.

The United States Army has not provided medical service for the Army of the Republic of Korea since the load is too great to take on this very large job.

Our hospital elements, however, in addition to their other great responsibilities, are doing a great deal of the surgery on wounded members of the Republic of Korea Army. Upon completion of surgery these cases are turned over to Republic of Korea hospitals.

Evacuation within Korea is carried out in the forward areas by jeep ambulances backed up by standard ¾ Army field ambulance and by the use of helicopters and light liaison aircraft to the extent of their availability for the rapid transportation of severely wounded individuals or those from isolated positions to Mobile Surgical Hospitals where life-saving surgery is available.

**Medical Corpsmen roam front line areas, speed wounded back to first aid stations**

### Antibiotics Lower Mortality

An interesting factor of medical support of the Korean operation has been the apparent lowering of the mortality rate of wounded patients in hospitals as compared with World War II experience. It must be understood that exact statistical values of this factor cannot be determined until the Korean operation is over. However, it definitely appears that the number of wounded dying after they are in the hands of the medical service is less than $2^1/_2\%$. The average experience of World War II was approximately 4%, and, in World War I, 8% of the wounded died after they had entered the hospital evacuation chain of the medical service.

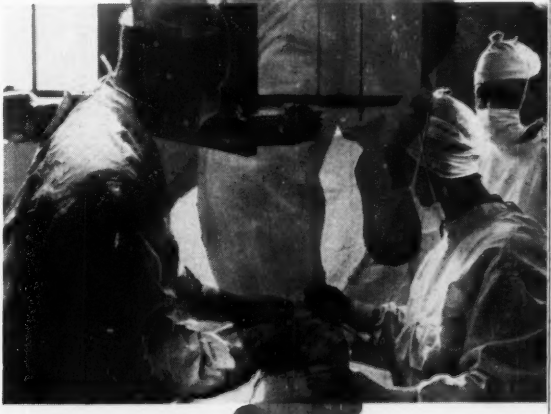
It is interesting to discuss the various factors which contribute to this lowering of mortality. High on the list must be placed the fact that we have had the new biologicals available throughout the medical system from the very beginning of this operation; whereas in World War II, penicillin did not become available throughout the medical service until the war was well along. Penicillin has been available from the start in this present conflict along with chloromycetin, aureomycin, streptomycin, and terramycin. This same condition pertains to another factor of the lowering of mortality, namely, the availability of whole blood. The providing of whole blood started during World War II. It has been available in the forward area hospitals in Korea from the very start of this operation.

A third factor, related directly to the specialist training program of the Army instituted in 1946, has been the complete staffing of the forward area hospitals with highly qualified surgeons and orthopedists, to an extend probably not equaled in World War II, in the immediate support of a force of the size that our Army force was in September in the Naktong perimeter. The presence of the well-organized base in Japan, coupled with adequate air evacuation facilities that brought patients from the forward hospitals to the base hospitals in a matter of minutes, has had a definite influence. The helicopter will play an ever-increasing part in rapidly, smoothly, and comfortably moving the seriously wounded from the immediate front in a matter of minutes to surgical hospitals normally an hour or more distance by ground transportation from the battalion aid station.

*(Continued on next page)*

**Korean carries Korean to safety**

**Helicopters have been one of the big keys in rapid transport of wounded from the front**



**Fourth Field Hospital, T[illegible], Korea was important base for care of severely wounded**

**Methadon**

Methadon as a substitute for morphine and which has been tested by Dr. Henry K. Beecher at the Massachusetts General Hospital, Boston, has now been given a rather thorough field test by Dr. Beecher, who went out to Japan and Korea as an Army consultant. He confirmed in the field his findings in this country. When used on wounded soldiers, methadon had the same effect milligram for milligram as morphine. While the racemic form is now on the market we lean definitely in the Army to the iso-levo form because it apparently produces far less nausea and vomiting than the racemic form. This factor is of considerable importance in the Army because of the required movement to the rear of our casualities while still under the influence of narcotics and which may be by ambulance but which may as well be by plane or ship. Chloroquin, which is now the standard Army malaria suppressant, was used effectively in Korea last summer, its first use under actual war conditions, and it has proved effective and desirable. From a technical standpoint a suppressant that requires dosage only once a week can be more effectively supervised in its administration than an item requiring daily dosages, because at some time during each week an individual unit such as a company will be out of the immediate forward line. Chloroquin has its effect on parasites in the blood stream but does not affect the tissue stage producing a clinical cure but often allowing the plasmodium of malaria to persist and to cause relapses over long periods. A drug or combination of drugs effective against tissue stages as well as blood stages is required. We believe that the new drug primaquin will serve this purpose when coupled with chloroquin in the treatment of malaria. This will substantially increase the days of duty and effective readiness for combat of soldiers required to live or fight in malaria areas. Plans are being carried out now to field test primaquin in one of the Central American countries.

**US forces supply first aid to Korean army but Korea supplies its own hospital facilities**

**Plasma Substitutes**

The wide field of plasma substitutes is of paramount importance to the Army, and studies being done in the development of this field are being closely watched by our Army Medical Research and Development people. No definite selection has as yet been made among the several tested nor will such a selection be made until the story is all in.

High mention among those advanced are dextran, polyvinylpyrolidone, and gelatin. Plasma substitutes of this sort, while not replacing plasma when it is available and never replacing whole blood, will nevertheless provide us with the assurance of having always at hand sufficient quantities of items capable of raising the osmotic pressure of blood fluid and assuring that we always have this effect at hand in combating traumatic shock.

An idoglobulin compound has been developed that may replace the chlorine-type tablets for the emergency sterilization of water in the field such as in the soldier's canteen when he requires water and is away from a sanitary source of supply. The taste factor seems to be no worse than that of chlorine residual tablets, but it does give a brown coloring to the water noticeable when drinking from a glass but not when drinking from a canteen. If used in cooking, it discolors starchy foods. Its ability to sterilize water has been demonstrated together with its possible greater effect on the cysts of the amoeba. Field acceptance tests with troops have not yet been performed.

Terramycin, as mentioned previously, is a biological which alone or in conjunction with other biologicals serves to prevent debilitating infection of war wounds and injuries in forward areas where laboratory tests for determining the identity of specific infections cannot be made.

The Army is very much interested in developing the use of intra-medullary pins for the fastening of long bone fractures. These pins are inserted into the medullary cavity of fractured long bones

down through the fracture site into the distal portion of the fractured bone, aligning the fracture exactly and giving stability so that the fracture heals without the use of a cast. Movement of the leg is permitted, thus preventing stiffening and wasting away of muscles of the fractured part which occurs when these fractures are placed in a cast. The total period required for the individual once again to become fit for duty is greatly shortened. Another factor is that in fractures of the long bone, the use of the intra-medullary pin permits much earlier weight bearing. The weight-bearing pressure at the fracture site stimulates the healing process. After the fracture is adequately healed the pins are removed. Along this same line, a casein resin material is being evaluated which might replace the plaster of Paris type cast with a lighter and much stronger material.

### New Burn Dressings

As another step in the continued study for the treatment of burns, a requirement emphasized for both military and civilian use in the face of the terrific burn-producing potentialities of the atomic explosion, a new type of burn dressing has been developed and is being evaluated. This dressing is 19 x 36 inches and has on the burn side a very fine gauze covering, a thick pad of highly absorbent cheap cotton material and backed up by many layers of an impermeable cellulose material—each sheet being somewhat like facial tissue with an outer, water-repellant layer to prevent wetting of the bandage under field conditions. The impermeable cellulose layers prevent the exudates of a burn or wound from soaking through the bandage and providing an excellent culture medium on the outside of the bandage and a tract communicating with the wound from the outside on which harmful bacteria can grow and along which they can find their way into the burn or wound; the harmful bacteria in this case being those which originate in the throat and nasal passages of the individuals coming into close contact with the patient. The size of the bandage provides a single unbroken coverage of the burned area and gives integrated protection not possible by the application of a number of smaller pads. This large dressing when applied about one of the limbs has the additional advantage of providing a considerable measure of splinting. Recently there has come to our attention an inexpensive gauze bandage developed by the Department of Agriculture and treated with sodium-hydroxide. The treatment has the effect of crinkling the individual fibers of the threads in the gauze so that the gauze tends first to adhere to itself or to its layers, and, secondly, permits it to stretch in either direction. The two-way stretch and adherent quality of this gauze allow it to be effectively applied with sufficient tightness to hold the dressing in place, without decorating the individual with a number of safety pins. This is, of course, an untested item not in production but we are interested in it because of the difficulty we have had in trying to devise a bandage which would hold this large burn bandage in place. The present bandages that derive elasticity through the introduction of latex or rubber fibers into the bandage are expensive.

The value of ACTH to war medicine is being investigated in the Far East. It is being used in the treatment of burns. Its value in the treatment of cold injuries is being investigated as well as in wounds where nerve injury is involved. It is being used to prevent the overgrowth of scar tissue that makes difficult the repair of a nerve or when repaired may tend to cause pressure or restrict growths affecting the nerve.

### Dispensable Injection Devices

Dispensable sterile injection devices are being investigated in order to improve packaging of items in such a way as to deliver the required dosages of drugs to the patient on the field of combat. One such device is the ampin with a sterile needle attached by a rubber tube to a glass container that can be prefilled with any type of drug. The container is partially filled with a drug and the remaining space is occupied by helium gas under pressure. When the needle is inserted in the skin, a seal is broken that releases the pressure of the gas, forcing the drug through the needle into the tissue. Another device is the well-known syrette used during World War II as a container for morphine. Improvement of this device and the widening of its use are being investigated.

### Actidione

One of those interesting side lines that develop in research has been the discovery of the rat-repelling effects of actidione, a by-product in the preparation of streptomycin. While actidione is still expensive, a sufficient demand might lead to mass production and lower cost. It could be used as a protective coat on the outer layers of packages and containers and could result in an enormous reduction in the world rat bill. It would have another use such as a protection of fruit trees from gnawing by deer and the protection of electric wires from gnawing by rodents. It may also be used to control plant disease.

**FROM THE SECRETARY'S DIARY FOR MARCH**

**3rd** This first week end in March finds spring "just around the corner," for the temperature is down and the atmosphere is cold and raw. Yesterday a visit with President Adams of the American Council on Education in the new home of the Council on Massachusetts Avenue, which provides ample room for expansion of the Council's activities. Now answering questions on pharmacy law enforcement from Pennsylvania and more distant points and wishing pharmacy laws everywhere were uniform. The day winds up with a terrific rainstorm in which it is easy to lose one's bearings among Washington's diagonal streets and circles.

**5th** The dictaphone came in handy yesterday, a Sunday, for last minute instructions and disposing of accumulated mail prior to departure for Des Moines via Chicago. Now busy on the telephone from the Palmer House to A. M. A., American Hospital Association, N. A. B. P., the College of Surgeons, and other groups, arranging for appointments on the return trip. Also a fruitful conference with Richard M. Jones, Director of the Blue Cross Commission, on pharmacy provisions in these plans. In the early afternoon departing for the Iowa convention at Des Moines and found Bob Swain assigned to the adjoining seat in the pullman car. Conversing on the problems of pharmacy shortened the trip appreciably. And now to the Savery Hotel in time to listen to Iowa's Pharmacist Governor Beardsley, who addressed a dinner session which was followed by most enjoyable entertainment.

**6th** This morning addressing the Iowa Pharmaceutical Association on "Pharmacy in the Nation's Service," and then at lunch with some of Iowa's outstanding pharmacists and pharmaceutical educators, including Past Honorary President George Judisch, Emeritus Dean Teeters, Prof. Louis Zopf, and, as a special guest, Mrs. Earl R. Serles, president of the A. PH. A. Women's Auxiliary. In the afternoon participating in a panel discussion on pharmacy's current problems with Dr. Robert L. Swain as moderator, and Joe Shine, Frank Moudry, and State Medical Association Secretary Phillips included in the panel. Late in the afternoon to view Drake University's new pharmacy building with Dean Benton as guide. Following a most enjoyable banquet of the Iowa Association, entraining for Chicago at night.

**7th** All this day in Chicago conferring with A. M. A. staff members including Dr. Austin Smith and Doctors Stormont and Wermer of the A. M. A. Council on Pharmacy and Chemistry. To lunch with Dr. Cruttenden and Messrs. Bain and Doty of the American Dental Association staff, discussing professional relations. Also a meeting with Dr. Ferguson and other staff members of the American College of Surgeons, with special reference to hospital pharmacy standards. Finally a chat with Messrs. Deno and Costello on business of the American Council on Pharmaceutical Education before ending the day en route to Washington via the "Capitol Limited."

**9th** Most of today spent in the office catching up with editorial and administrative affairs and late in the afternoon conferring with representatives of the Arthritis and Rheumatism Foundation, for whom we may work out a health information program similar to that carried on for Cancer and Heart Associations.

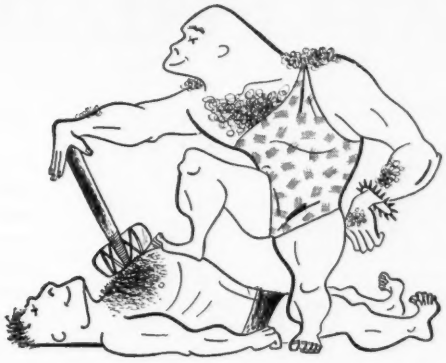
**12th** Today a visit from Dr. Doull of the Leonard Wood Foundation, which is specializing on testing drugs for the treatment of leprosy and found many problems of interest to pharmacy in this activity.

**20th** Yesterday and today attending the Conference on Acceleration of College Courses sponsored by the American Council on Education and it appears that the educators believe in accelerating programs for individuals but not for institutions. The impact of the acceleration problem will probably not be felt until men of college age begin to return from the war and will want to make up lost time.

**21st** Now going over current programs with the staff. In the late morning a conference with Oscar Ewing to discuss

***(Continued on Page 255)***

# The battle of the **BULKS**



**To you it must seem that every pharmaceutical house has recently marketed a "bulk" for use in constipation**

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|---|---|---|
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| • found to correct both acute and chronic constipation in 92% of cases[2] | ☑ | ☐ |
| • corrects *years* of constipation, beginning in *days*[1] | ☑ | ☐ |
| PLUS • physiologically correct action | ☑ | ☐ |
| • produces soft, moist, easily passed stools | ☑ | ☐ |
| • causes no bloating or distention | ☑ | ☐ |
| • not habit-forming | ☑ | ☐ |
| • nontoxic, nonantigenic, hypoallergenic | ☑ | ☐ |
| • does not interfere with vitamin absorption | ☑ | ☐ |
| PLUS • available in tablets and also in granule form for infants and children | ☑ | ☐ |
| • accepted by the Council on Pharmacy and Chemistry of the American Medical Association | ☑ | ☐ |
| • steady volume builder | ☑ | ☐ |
| • intensively advertised and detailed to physicians | ☑ | ☐ |

1. Gastroenterology **13**:275, 1949.
2. N. Y. State J. Med. **48**:1822, 1948.

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| 50's | $ .60 | $ .89 |
| 100's | 1.00 | 1.49 |
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| 25 Gram | .54 | .79 |
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# NATIONAL DEFENSE AND

## DEFERMENT FOR STUDENTS

PLANS for a nation-wide test which will afford registrants the opportunity to demonstrate their aptitude for college or university work were announced by Major General Lewis B. Hershey, Director of Selective Service. These test scores, or scholastic standing in college or university, will be used by local boards in determining the eligibility of registrants to be considered for occupational deferment as students.

Under the new plan, student deferments will be based upon either capacity to learn as demonstrated by the results of a nation-wide test or upon scholastic performance as evidenced by class standing. These two criteria are variables which may be raised or lowered to either increase or diminish the number of students in training, as the national interest may require.

The tests, to be administered by the Educational Testing Service of Princeton, New Jersey, will be given at approximately 1000 examination centers throughout the United States and its territories. Printed instructions concerning the test and application blanks will be available through the 4000 local boards about April 12 or shortly thereafter.

The scores and class standing standards announced by General Hershey are as follows:

**Professional School Student**—Certificate from school that he is satisfactorily pursuing a full-time course of instruction leading to his graduation.

**Graduate School Student**—Certificate from school that he currently is meeting degree requirements and is expected to obtain his degree.

**Student Seeking Admission to Graduate School**—(*a*) Scholastic standing in upper half of male members of his class or, (*b*) score of 75 or better on test. (Equal to a score of better than 120 on AFQT Armed Forces Qualifications Test.)

**Five- or Six-Year Undergraduate Student**—(*a*) Scholastic standing in the upper three-fourths of the male members of his class or, (*b*) score of 70 or better on tests. (Equal to 120 on AFQT.)

**Student Entering Senior Year**—(*a*) Scholastic standing—upper three-fourths of the male members of his junior class or, (*b*) score of 70 or more (equal to 120 on AFQT).

**Students Entering Junior Year**—(*a*) Scholastic standing—upper two-thirds of the male members of his sophomore class or, (*b*) score of 70 or more (equal to 120 on AFQT).

**Students Entering Sophomore Year**—(*a*) Scholastic standing—upper one-half of the male members of his freshman clsss or, (*b*) score of 70 ore more (equal to AFQT).

The Executive Order issued by the President modifies the plan proposed by the Director of Selective Service in that no provision is made at the present time for testing the high-school graduates. Plans thus far announced will not this year materially affect the opportunity of high-school graduates to enter college next fall.

The tests will be given on May 26, June 16, and June 30, 1951, at approximately 1000 prescribed educational institutions located throughout the United States and its territories. The tests will be given by the Educational Testing Service at no cost to the registrant. The registrant will be required to pay only for his own transportation costs to and from the testing center.

## "WATERED" UMT BILL VOTED

Close on the heels of the announcement of plans for deferment of college students, the House voted to drop the Administration's proposal for Universal Military Training in favor of a much weaker version, despite a last minute plea by General George C. Marshall, Secretary of Defense.

Marshall labeled the House bill an "emasculated" version of the measure approved earlier by the Senate. "If UMT were authorized now," General Marshall told reporters, "it might be possible by summer of next year to start cutting back the time draftees spend in uniform."

The House version provides for a UMT commission to prepare detailed recommendations for a training program and submit it to Congress within six months. Within 45 days thereafter, the Senate and House Armed Services Committees must bring out privileged legislation on the subject. That bill must be enacted before UMT could go into effect.

# SECURITY

## SERVICES TO SHARE INTELLIGENT MEN EQUALLY

The Army, Navy and Air Force will begin to share equitably, in proportion to their sizes, those volunteers and draftees with superior mental qualifications. The new policy is aimed at ending a situation in which the Navy and Air Force have been getting the lion's share of the better equipped newcomers to an expanding military establishment.

Concurrently, the Secretary of Defense General George C. Marshall, has directed the Army, Navy, Air Force, and Marine Corps to adopt standard physical requirements. Describing the new plan for "qualitative distribution of military manpower" as a forward step in unification, General Marshall said that "to concentrate the qualities of leadership or technical pre-eminence in one or more branches of the service is detrimental to our total strength in terms of efficiency."

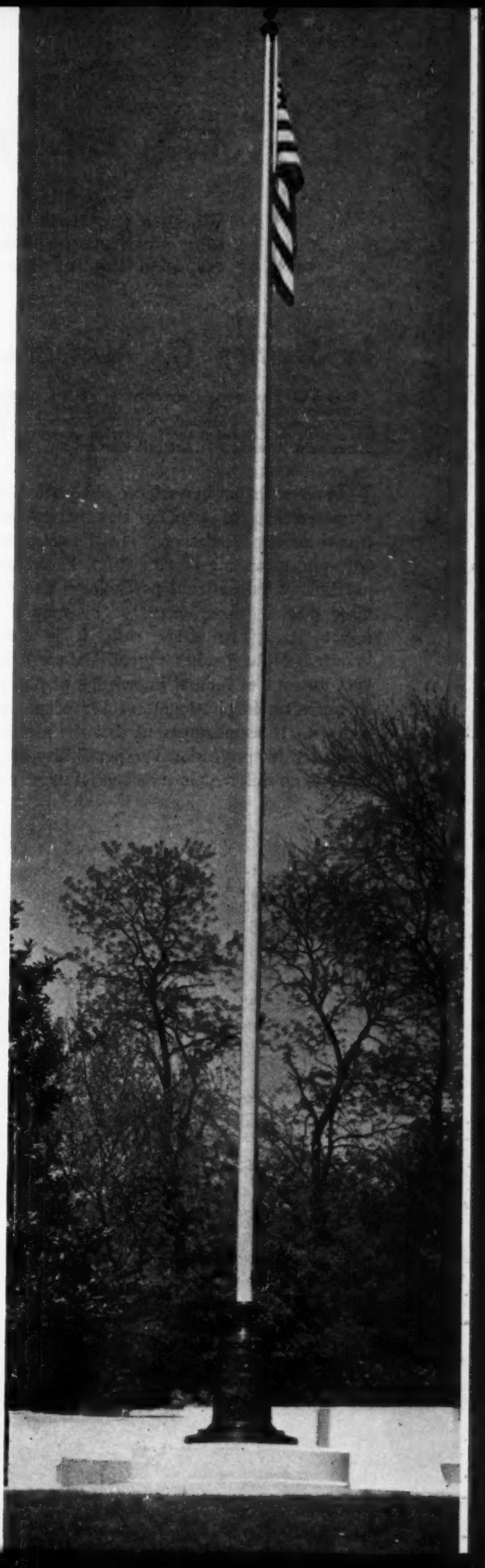
After May 1, no single service may accept toward its assigned enlistment quota more than 8 per cent of those men who qualify for the highest mental group, or those who achieve a score on the Armed Forces Qualification Test of 98 to 100. All men, whether volunteers or draftees, will be classified into groupings according to the scores they receive on the test, and each service will receive a proportionate share of each group.

Men can still volunteer for the service of their choice, but a would-be recruit for the Air Force or Navy with a high score might find the service he selects overfilled with men of his group. If the draft is then "breathing down his neck" he may find himself in the Army.

## FIRST SCIENCE FOUNDATION DIRECTOR NAMED

A pioneer in governmental support of fundamental scientific research has been selected by President Truman to be first director of the National Science Foundation. He is Dr. Alan T. Waterman, 58, former deputy chief and chief scientist of the Office of Naval Research.

The National Science Foundation was designed to further the search for basic knowledge. It is expected that it will finance research projects and create fellowships for producing new scientists.



# TO BE A GOOD TEACHE..

**Whether you are a professor, a student, or a practicing pharmacist long since out of school, Professor Mittelstaedt's evaluation of the responsibility of educational leadership will make you think.**

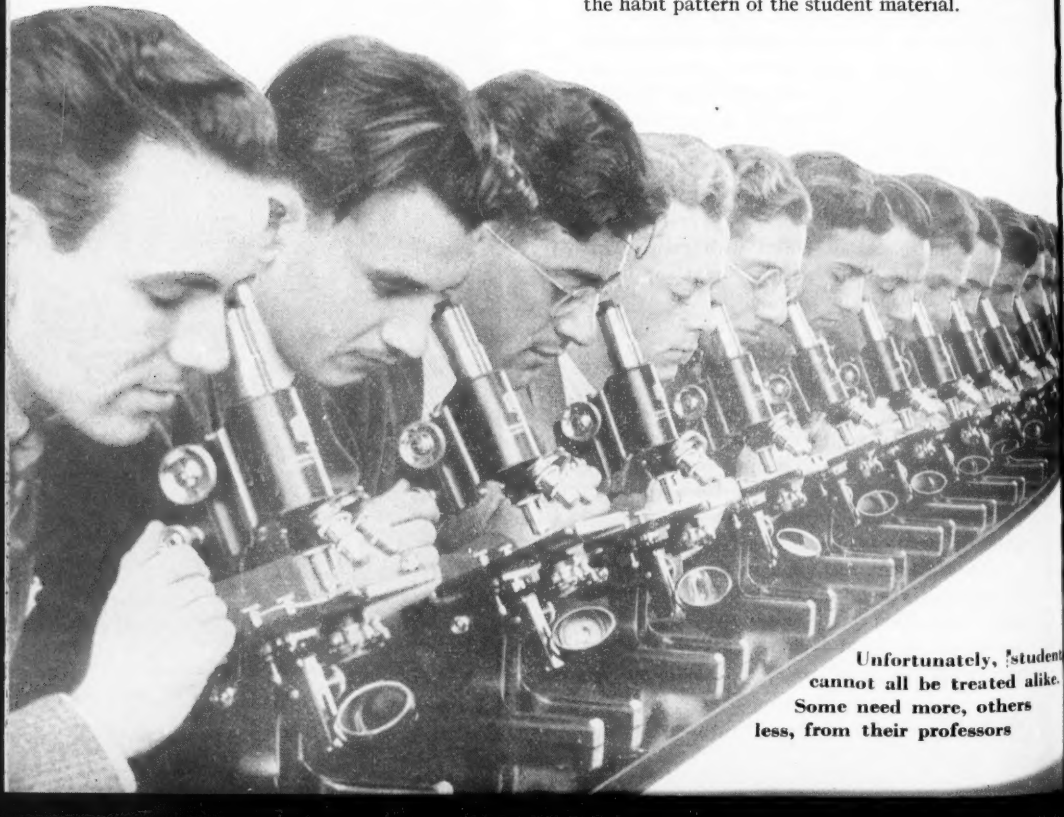
## *by Stanley G. Mittelstaedt*

Associate Professor, University of Texas, College of Pharmacy, Austin, Texas. From the paper, "Suggested Improvements for Teaching Pharmacy," presented before the Section on Education and Legislation, AMERICAN PHARMACEUTICAL ASSOCIATION, Atlantic City meeting, May 1951

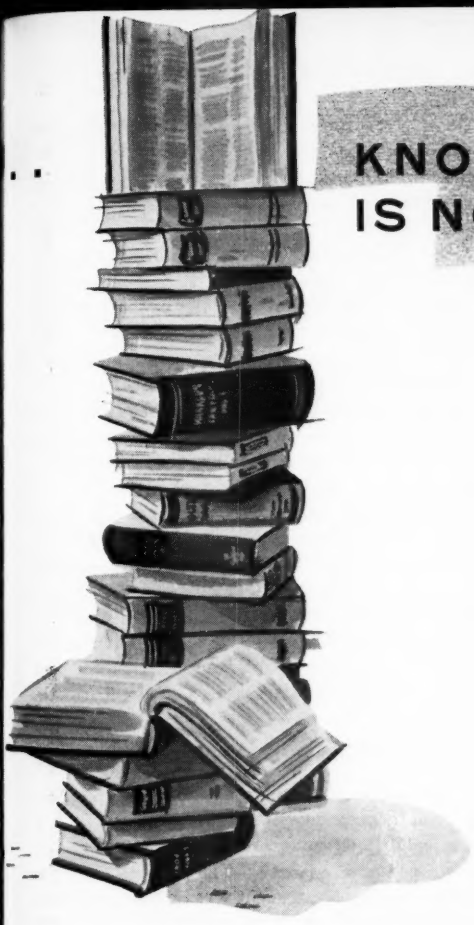
IN A recent paper in a science publication it was stated that "Many of our Deans and Administrators are not Educators. They do not possess a true understanding of education, knowledge of psychology, educational psychology, and supervised teaching experiences." This may or may not be true. In either case, it is common knowledge that it takes a great deal more than a vast amount of factual knowledge of pharmacy to make an inspirational teacher of pharmacy courses. It seems apparent that the problem of education for professional responsibility in pharmacy is no different in its essential aspects from that of preparing students for the profession of teaching in the secondary schools.

The pharmacist's education at present is strictly a technical one and tends to be rather narrow. For that reason it restricts to a large extent the supply and the development of leaders. Therefore, in line with the proposed extension of the pharmacy curricula, subjects in the humanities and social sciences should be added and they should be presented with a great deal of vigor and enthusiasm.

Through the teachers, our colleges of pharmacy can help the students to develop character, can help them to acquire necessary qualifications and can instill certain attitudes and ideals in them. Honesty, dependability, resourcefulness, accuracy, self-control, and a pleasing personality should be developed in accordance with the natural abilities of the student. The goal for our colleges of pharmacy should be to improve upon the habit pattern of the student material.



**Unfortunately, students cannot all be treated alike. Some need more, others less, from their professors**



# KNOWLEDGE ALONE IS NOT ENOUGH

### The Teacher

In many of our colleges and schools, research has been so heavily emphasized that teaching is secondary rather than at least equal. Applications for positions to a school or college staff emphasize principally the published papers, but rarely mention the applicants' accomplishments as a successful teacher. Furthermore, these same individuals are selected because of their recognized research studies. This form of publicity is what most of the pharmacy schools have come to cherish. More and more the pharmacy schools are judged by their research and publications. Many times the pharmacy student does not benefit by these papers. This same student is there to learn and to be taught. If the teacher is a good research man, so much the better, but the primary purpose of the teacher is to teach.

Research is certainly important and should not be minimized especially when it is used to aid in teaching the pharmacy student. It is the combination of research and teaching that stimulates him to be a more efficient teacher. The teacher is under an obligation to develop himself to the fullest extent possible. The Christian Ideal of education is that one who thirsts and hungers after knowledge, thus giving him a proper appreciation for other persons.

Teaching is much like being an effective salesman of the subject matter he is teaching. It certainly is not enough to present lectures on a "take it or leave it" basis. It is fundamental that the teacher have a complete knowledge of the subject matter. Even all this acquired knowledge is insufficient. Teaching is an art as well as a science. Every teacher has his own techniques but there are also certain basic principles of teaching or learning which all good teachers use consciously or unconsciously.

The chief difference between teaching and any other duty is that the teacher puts more emphasis upon instruction and its evaluation. The position of the pharmacy teacher should show one how to manage men, how to sustain their interest, stimulate their loyalty, increase their knowledge, develop their skill, and inspire them to "lift themselves up by their own boot straps." The teacher's everyday appearance becomes the students' future appearance. They reflect the teacher's attitudes, ideas, and discipline. They become what they see in the teacher.

### "Born to Teach"

Nearly everyone has observed the "natural born teacher." They seem to do a successful job even without knowing anything about the principles of education. For those who are not "natural born teachers" it would be most helpful to study the fundamental principles of education. These basic principles are the result of painstaking research and scientific experimentation. These principles can also be modified to suit the individual teacher's needs, as well as be concerned with the teacher's task in transmitting to the students what he knows and can do. A few of these principles for teaching and learning may be cited as follows:

*(Continued on next page)*

**Good Teacher** • • • • • • *from page 241*

There must be a reason why a student learns. This is referred to as "Motivation." Learning occurs when the determining motives and values of the student are involved. He learns best that which he believes is a requisite to his specialty. Artificial motivations can be and are supplied. For example, a student may fear failing an examination or he may only wish to learn to please his instructor. The awards in the form of grades serve as additional motives for learning.

To begin with, then, teaching is the guidance and organization of purposeful learning. Learning is essentially that which the student desires and wants to learn. The teacher can so organize the student's learning better than he can himself. In order for the teacher to organize this student's learning he needs such things as judgment, sympathy, knowledge, skill, wisdom, maturity of mind, and of utmost importance—the ability to stimulate the student. This is where personality plays such a large role. It is very difficult to stimulate only through the use of knowedge. Some teachers have marked abilities to develop showmanship, enthusiasm, and in some cases even a gift along the lines of dramatization. All these things are essential to the teacher but no single quality or any combination of them represents the final duty. They are means to an end.

It is now recognized that there are two general organizations used in teaching. One is the traditional or what has been used in the past and the other is what is called "modern." The traditional method used the assign, or lecture-recite and test formula. The modern is concerned with the unit as a whole. This may concern either the subject matter as a unit or the experience unit. Frequently these units (subject matter and experience) overlap. Actually, the subject matter unit is the system used in which it is the main division and around which experiences are crystallized or related. An experience unit may then be said to be that part of our learning resulting in the actual achievements derived from the subject material unit.

In effecting any classroom organization of what may be termed purposeful learning whether it is traditional or modern, certain principles must be considered. They may be reiterated for the discussion purposes into the methods of learning and those related to the so-called human element. The uniting of the two is what is desired.

The definite principles which are related to the organization of learning are: the subject matter, the point of emphasis, the sequence and evaluation. The subject matter may be considered to be that phase which engages the learner's active interest and his specific purpose. The point of emphasis or focalization certainly has a definite relationship to the subject matter. It highlights the important aspects of learning. A good point of emphasis asks the student a question which he wants to answer, thus he is challenged to do some genuine original thinking. The sequence in planning the classroom organization considers the development of a student's mental growth. This is very important in relation to the curriculum. Also the bearing it has on the specific jobs within the curriculum and on the individual courses is equally important.

Experience has shown that the sequence of courses in the pharmacy curriculum has a marked effect. It shows how the specific job of learning is handled. The course is never a self-contained unit to be covered and passed by, but rather it is an integral part of the development line which runs through the course and curriculum and which contributes to the student's mental growth.

### Seeing the Whole Picture

Instruction will be more effective if the teacher is well acquainted with the entire pharmacy curriculum and not merely the course that has been assigned to him. The course must be taught so that the student sees its relationship to what he has studied, and to the allied courses he is studying, and to those courses he will take in the future.

Good teaching doesn't just happen. It is planned. Much of the difference between an excellent instructor and a poor one lies in planning. Planning a day's work requires attention to all of the activity of an instructional period. The presentation may be a combination of lecture, demonstration, discussion, practice procedures, and such other means or methods that may be used to enable the student to learn the lesson. The presentation is always planned with the aim of obtaining the correct student performance, demonstration and understanding. A well-organized and logical lecture is never sufficient. The organization and the definite stated ideas are necessary, but the major consideration is always the extent to which they stimulate students to perform and apply the things that are being learned. Therefore, planning the presentation requires consideration of the nature of the student as well as the subject matter. In conclusion, the knowledge of ideas presented in this paper are important, but the application of those ideas is the essence of improved instruction.

## LOCAL BRANCHES

MEMBERS of the **Philadelphia Branch** met March 8 for a dinner-meeting at the Temple University School of Pharmacy. Louis M. Zopf, professor of pharmacy, State University of Iowa, spoke on "Newer Developments in Dermatological Formulation." "Problems Associated with Virus Research" was discussed by Dr. John Spizizen, of Sharp & Dohme, Inc.

Mr. Saul Fischer, of Bobst Pharmacal Company, Inc., presented a talk on "Geriatrics' Challenge to Pharmacy" at the March 12 meeting of the **New York Branch.**

"Pharmacy in Ohio" was the title of a talk given by William P. Murray of the Ohio State Board of Pharmacy, at the March 7 meeting of the **Cincinnati Branch.** The February 6 Branch meeting featured a talk on "Medication in Obstetrics" by Dr. R. C. Bryant, Director, Department of Obstetrics, Bethesda Hospital, Maryland.

The **Western Nebraska Branch** held its regular business meeting on February 28, at Scottsbluff. Dr. V. J. Brandt, veterinarian, presented a discussion on "Rabies—Its Symptoms, Control, and Treatment." Election of officers will take place at the next meeting.

"Psychiatric Methods of Treatment" was the title of a talk given by Dr. J. M. Kenyon of the Toledo Clinic, at the February 28 meeting of the **Northwestern Ohio Branch.**

The March 15 meeting featured Dr. Albert A. Dietz of the Toledo Hospital Institute for Medical Research as guest speaker. Dr. Dietz spoke on "The Chemistry of the Composition of the Blood."

The February 27 meeting of the **Michigan Branch** was devoted to the annual "Student Night" program. Representative students from each of the Michigan Colleges of Pharmacy were eligible to present papers on subjects related to pharmacy in competition for cash awards. The trophy and first prize were awarded to Mr. Phillip Neuman of the Detroit Institute of Technology for a talk on prescription tolerances. Second prize went to Miss Jane Zettle of the University of Michigan for her paper on "The Responsibilities of a Pharmacist."

## STUDENT BRANCHES

REGULAR meetings of the **University of Kentucky Branch** were held December 13 and February 15. Mr. Thomas Hoskins, local pharmacist, was guest speaker at the December 13 meeting. Mr. Hoskins stressed the fact that the AMERICAN PHARMACEUTICAL ASSOCIATION is the only truly "professional" organization to which pharmacists may belong. At the February 15 meeting, Mr. Robert Thornbury, secretary of the Kentucky Heart Association, spoke on "The Role of the Pharmacist in Combating Heart Disease."

**St. John's University Branch** held a special meeting on February 28. Dr. Robert P. Fischelis, Secretary of the AMERICAN PHARMACEUTICAL ASSOCIATION, spoke to the members. Dr. Fischelis stated the position of draft-age students and explained the position of the A. PH. A. on the FDA ruling in regard to the refilling of prescriptions.

The regular meeting was held March 9. Mr. William de Neergaard, president of the New York State Board of Pharmacy, was guest speaker.

**University of Puerto Rico Branch** held its first meeting of the current semester on February 5. Officers elected at this meeting were: Fernando Colón, president; Luis Suárez Pérez, vice-president; Miss Lucy de Armas, secretary; and Rafael Bernabe, treasurer.

Dr. John Stegeman, Athens, Ga., physician, was guest speaker at the **University of Georgia Branch** meeting held February 1. Dr. Stegeman's topic was "the Relationship Between the Doctor and the Pharmacist." A discussion period followed the speech.

New officers of the **University of Florida Branch** are: William L. Harris, president; James W. Penuel, vice-president; Annette Adams, secretary; Bert C. Bailey, treasurer; and Eleanor M. Murphy, reporter. Meetings of the branch, known as the Mortar and Pestle Club, are held on the second Thursday of each month.

Fred Minardi will serve as treasurer of the **Ohio Northern University Branch** in the absence of Robert Elton who has been called to active duty. Mr. Robert Hardy, Eli Lilly representative, spoke on "Past, Present, and Future of Medical Discovery" at the March 15 meeting.

**Duquesne University Branch** has once again realized its goal of a 100% membership and can successfully claim that every student in the School of Pharmacy is a member of the Student Branch. New officers of the Branch are: Kenneth D. McDonnell, president; Merle Riley, vice-president; and Mary Balta, secretary-treasurer.

*(Continued on Page 256)*

## *Straight From Headquarters*

**Cortisone Poses a Problem . . . . . from page 211**

created to determine the therapeutic uses for which it was to be made available.

Hospitals were designated as official recipients and made their application for the drug to the War Production Board which set up a distribution center from which allocations were made. As the volume of production increased the allocation gradually became unnecessary and was discontinued, then the restriction of use to proscribed ailments was relaxed. Supply and demand came into balance and producers, distributors and the sick were well served.

Cortisone has never been subject to any such control. Until its oral use in tablet form was worked out, patients receiving it were generally hospitalized and there was the usual control associated with the administration of drugs in hospitals.

When the manufacturer was able to place the tablet form of the drug on the market it was probably not anticipated that the demand would be so great. There was no attempt to limit the use of the drug through a therapeutic committee. There was no effort to allocate on the basis of established or proven need. Distribution was undertaken through the customary trade channels.

It is an interesting experiment which has put various segments of our system of drug distribution to a rather severe test. Wholesale druggists suddenly find themselves confronted with an allocation problem such as they have never had to cope with before. Hospitals find themselves somewhat out of the preferred position which they have been accustomed to occupy in circumstances involving use and distribution of scarce drugs. Some physicians and pharmacists stand accused of charging patients too much for the drug. The public is being made aware of the price charged by the manufacturer to wholesalers and the suggested price to hospitals, retail pharmacists and physicians.

It will be interesting to see how and in whose interest it will all work out. At the moment it looks as though future problems like this one might be worked out to the better advantage of all concerned if producer, distributor and consumer, including those who administer as well as those who receive the drug, all had a say in developing the best distribution procedure.

✦ ✦ ✦

### Foundation Progress

ON APRIL 1 Commander W. Paul Briggs took over the secretaryship and executive direction of the work of the American Foundation for Pharmaceutical Education. This is the first time that the Foundation has taken on a full-time director. The late Dr. E. L. Newcomb combined the secretaryship of the Foundation with his work as executive vice-president of the National Wholesale Druggists Association. Following the demise of Dr. Newcomb, Dr. Ernest Little, who contributed much to the launching of the Foundation as a joint professional and industry project, became acting secretary and kept the business of the Foundation moving while carrying on his regular duties as head of the chemistry department of the College of Pharmacy of Rutgers University.

The Foundation has an outstanding board of directors which formulates its policies and encourages industry contributions to the funds to be used for the development of pharmaceutical education.

The advent of a full-time director of the administrative affairs of the Foundation is an indication of the desires of its board of directors to make it a permanent institution. It is well for all concerned in giving and receiving Foundation funds to bear in mind that pharmaceutical education cannot advance cheaply. Where it has reached its highest levels it has not been able to maintain itself on student fees.

To guarantee a satisfactory flow of funds from the drug industry to the colleges of pharmacy for promoting high-quality undergraduate and graduate instruction and research is the main function of the foundation. We wish Dr. Briggs every success in keeping the pipelines filled and controlling the valves which will send the flow in the right direction.

## SOPRONOL IN DERMATOPHYTOSIS

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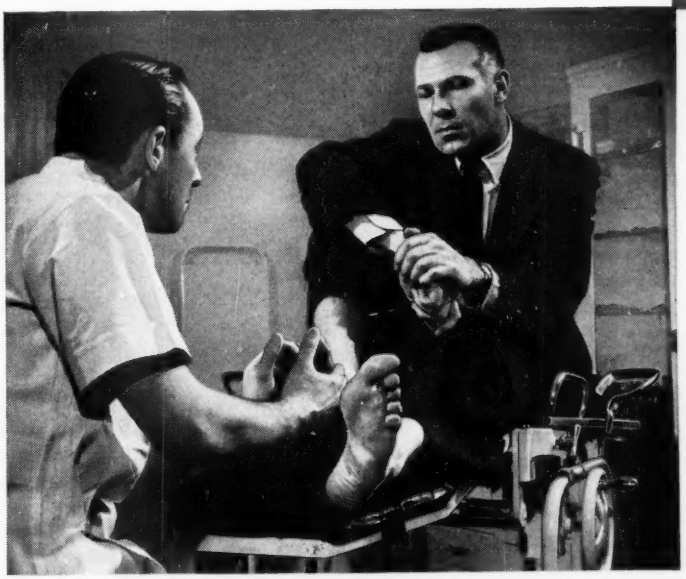

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1. Nettleship, A.: Arch. Dermat. & Syph. 61:669, 1950
2. Brewer, W. C.: Arch. Dermat. & Syph. 61:681, 1950

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# PHARMACY IN FRANCE

## PART II

by Dr. Richard A. Deno

Rutgers University College of Pharmacy, Director of Educational Relations, American Council on Pharmaceutical Education.

WHILE the practice of Pharmacy in France has some differences from our American methods, there are many points of similarity, as was pointed out in Part I of this article in the March issue of THIS JOURNAL. If, indeed, there are major differences in practice between the two nations, these differences probably lie in the role that government plays in the profession in France. Even there, however, there is not so much difference in end result, but rather, in technique. For example, the Central Service of Pharmacy does for French pharmacists what a great variety of government and non-government agencies do in America, and, I might add, what pharmacy here does for itself.

Educational methods, of course, have the well-recognized European flavor of greater attention to study, and less to play; older teaching staffs, and equally old and traditional methods. Subject matter draws heavily on the scientific and laboratory side, with little or no attention to the languages, social studies, and business courses that are found in the curricula of our American schools.

Courses in prescription practice are not offered in France, but some of the material covered in these courses in America is offered in the French courses on pharmaceutical chemistry.

Students are admitted to the study of pharmacy after completing their studies in the lycée, which corresponds to our high school. They must serve one year of apprenticeship before being admitted to college and after graduation from the lycée.

### THE FACULTIES OF PHARMACY

The French faculties of pharmacy, corresponding to our schools and colleges of pharmacy in America, are always part of the universities, which are under state control. However, the faculties of pharmacy do not utilize other branches of the universities, as do many of the American colleges. Courses in chemistry, physics, and biology are given by the faculties of pharmacy; never by these divisions in other branches of the universities. The universities, and consequently the faculties of pharmacy, are under the administrative supervision of the National Minister of Education, and all have the same curricula. They are not subject to other control, direct or indirect. Obviously, there is nothing in France corresponding to the American Association of Colleges of Pharmacy or to the American Council on Pharmaceutical Education, for there is no need, since they are state controlled.

There are four types of faculties in France. The autonomous faculties are those having their own deans. They are completely separated from the faculties of medicine. Autonomous faculties exist at the Universities of Montpelier, Nancy, Paris, and Strasbourg. A second type is the mixed faculty, medicine and pharmacy, with one dean administering both branches. Mixed faculties are found in the Universities of Alger, Bordeaux, Lille, Lyon, Marseille, and Toulouse. Lille has two faculties, one administered by the state, the other by the church.

The third type of faculty is that found at the Universities of Clermont-Ferrand and Rennes. All four years of the curriculum are given, but the final examinations are administered by the professors who constitute either an autonomous or a mixed faculty of another university. The diploma is granted by the university whose faculty conducts the final examinations. Thus a student may study pharmacy for four years at

Clermont-Ferrand, take his final examinations at Lyon, and receive his dipolma from Lyon. The fourth type of pharmacy school is termed preparatory, and there are several of this type in France. Here, the student studies pharmacy for three years, then must transfer to one of the other three types where the fourth year is completed.

The French undergraduate is largely "on his own," for the laboratory classes are generally supervised by an assistant, while the professor engages in independent research problems. This condition extends also to the lecture periods, where monitoring of classes is infrequent, and where tests are sporadic. As a matter of fact, the student's ability to pass the end of the year examination is perhaps the major test of his success in school. That may account for the fact that although four years constitute the time announced for completing studies in pharmacy, students generally average four and a half years. The comprehensive examinations given at the end of the fourth year are often a difficult obstacle, and students are given the opportunity for further study.

At the conclusion of five years' training in pharmacy, the first of which was spent as apprentice, the successful candidate receives the Diploma in Pharmacy, granted by the state. This is prerequisite to registration, and corresponds to our Bachelor of Science in Pharmacy. In addition, the universities grant diplomas in pharmacy in the name of the university. These represent a standard of achievement less than that represented by the diploma granted by the state.

In addition to graduate training leading to the doctorate, the faculties of pharmacy offer postgraduate course work in various fields, frequently for a year, and leading to a certificate in a special field.

For hospital pharmacists, in addition to the studies outlined for obtaining the diploma, an internship in hospital pharmacy is required. The intern works in an established hospital pharmacy throughout four years. He lives at the hospital, and receives his board and a small salary throughout the internship.

## CENTRAL SERVICE OF PHARMACY

Governmental regulation of Pharmacy in France is centralized and hence uniform throughout the country. Differences such as occur in America from state to state do not exist in France. Foremost among the regulative agencies are the Central Service of Pharmacy of the Ministry of Public Health, and the National Order of Pharmacists. The first of these, the Central Service, controls most of the aspects of pharmacy which in America are controlled at the federal level, and some of those which are regulated by our state boards of pharmacy. The Central Service is directed by a chief who is a pharmacist, and is staffed almost exclusively by pharmacists. In addition to the general administrative offices, it has six bureaus, each with a chief; and of these, two are women pharmacists.

### The Six Bureaus

The first bureau of the Central Service is that of Legislation and Disputed Claims. It is charged with the elaboration of laws and regulations concerning the legal control of pharmacy in France, with disputed claims of various types, and with internal affairs of the Central Service, such as matters of personnel, supplies, and budget.

### Regulation of Specialties

The second bureau is concerned with aspects of pharmaceutical manufacturing, with the internal control of antibiotics, with analyses and exposures of frauds, and with relationships of pharmacy to social legislation.

The third bureau controls the introduction of new drugs and the regulation of pharmaceutical specialties. It receives applications for new drugs, interprets the analytical and clinical data submitted, and eventually approves or disapproves the public sale of such drugs. It also controls the publicity accompanying pharmaceutical specialties. The chief of this bureau estimates that approximately 20,000 pharmaceutical specialties are registered in France, the majority being of French manufacture. Of these, about 5000 are widely used. Practicing pharmacists loudly condemn the multiplicity of specialties, and especially the duplication or close approximation of a specialty. This practice appears to be fairly common. The older pharmacists object to the change that has occurred in prescription prac-

*(Continued on page 248)*

**In his comparison of French and American Pharmacy, Dr. Deno finds the greatest differences in educational and legislative methods.**

# FRANCE

*(Continued from page 247)*

tice because of widespread prescribing of specialties. These complaints all have a familiar sound.

In France, promotion by manufacturers of the sale of specialties does not make use of the detail man nearly so much as in America; printed advertising in journals and by direct mail is used. None of the faculties of pharmacy stresses specialties in formal courses; it is assumed that a graduate qualified in basic chemistry and biology will have the ability and interest to learn about them during the course of his daily practice.

### The French Codex

The French Codex is prepared under the direction of the chief of the fourth bureau. The first French Codex appeared in 1818. At present, regulations provide for the publication of a Codex each twelve years, with a supplement appearing each three years. The Codex is prepared by a commission of thirty members appointed by the Minister of Public Health, plus seven members *ex officio*. The French Pharmacopeia consists of all editions of the Codex and of all supplements thereto. Hence, anything that has ever appeared in a Codex remains official, whether or not it appears in the most recent edition.

Bureau number five deals with importations, and has played a prominent role in the rehabilitation of the pharmaceutical industry in France following its decimation during the recent war. Immediately following the war, importations were governed by emergency situations; later by efforts to reconstitute industry. Within the past couple of years, the work of the bureau has been intimately related to Marshall Plan aid. Programs are established for the importation of medicaments, surgical supplies, equipment destined to be used by pharmaceutical industry, dental and auditory prosthetics, laboratory supplies and equipment, and apparatus for radiology. Requests for importation must be approved by this bureau, and details of commercial agreements are arranged here.

The sixth bureau is that dealing with exportations, stupefacients, and inspection. Here, visas and licenses are granted for exportation of drugs, and statistics concerning exportations are tabulated. Control of the sale of poisons is vested in this bureau, as is the regulation of traffic in narcotics and certain other habit-forming drugs. International conventions of manufacture and commerce are followed, and the inspectors of the bureau are active in collaborating with police in the repression of illicit drug traffic. Inspection of pharmacies, and inquiries called for by the Chief of the Central Service are carried out by the inspectors of this bureau.

The Central Service of Pharmacy thus performs services which in America are cared for by the Food and Drug Administration, the Treasury Department, the National Institutes of Health, the Committees of Revision of the United States Pharmacopeia and of the National Formulary, and by the various State Boards of Pharmacy.

## THE NATIONAL ORDER OF PHARMACISTS

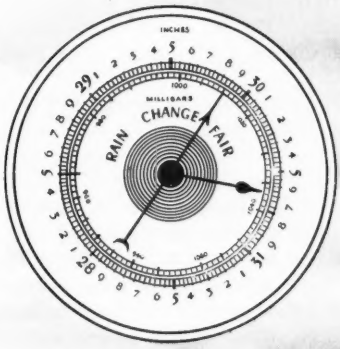
A second governmental agency intimately concerned with pharmacy is the National Order of Pharmacists, established by law during the recent war. Whereas the Central Service of Pharmacy is concerned chiefly with the protection of the health and interests of the public, the Order is concerned with the internal improvement and regulation of the profession. Sharp separation is not always possible between the functions of the Central Service and those of the Order. The two agencies work in close harmony, and the Chief of the Central Service is a member of the Central Council of the Order.

The principal full-time administrative officer of the Order is the Permanent General Secretary. The incumbent is both a graduate pharmacist and a lawyer. The Order is installed in its own building, in Paris. There are four sections of the Order, and every pharmacist in France must have his name inscribed on the roll of at least one of these sections. Such inscription corresponds to registration in America.

### The Four Sections

Section A consists of those who own or have owned retail pharmacies, and about 14,000 are so registered. Section B consists of manufacturers, and contains around 2000. Section C, the wholesalers, has 200 members. The last section, Section D, numbers among its members hospital pharmacists, pharmacist-biologists, mutualists, pharmacists working for a salary, and all others not included in the first three sections. The total number of pharmacists registered with the Order, approximately 15,160, is not so great as the sum obtained by adding the membership

*(Continued on Page 250)*

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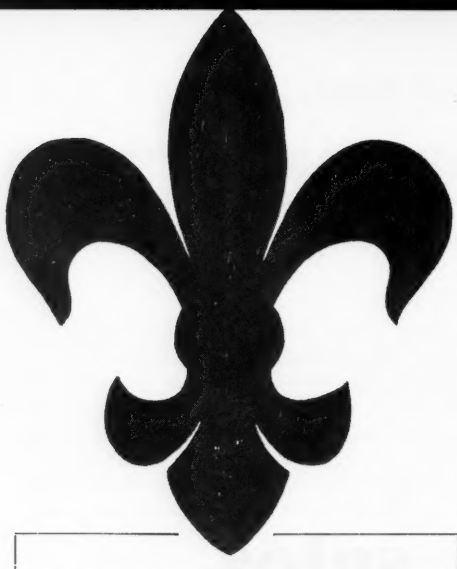

Part I of this article, covering general pharmacy practice and hospitals, appeared in the March issue of THIS JOURNAL, Page 164.

**FRANCE** • • • • • • • • • • • • *from page 248*

figures of the four sections because some pharmacists are listed in more than one section. Inspectors, functionaries in pharmacy of the Ministry of Public Health and of the Ministry of Education, and those in the pharmacy services of the armed forces are not registered with the Order.

Each section of the Order has a Council which studies problems peculiar to the section. In addition, there are Regional Councils and a Central Council, headed by the President of the Order, and with members from each of the Regional Councils. The Central Council is the highest echelon of the Order, and is the body which cooperates with the Central Service on matters of legislation. The present President of the Central Council of the Order is a practicing pharmacist who is also a member of the French Chamber of Deputies. The Regional Councils are suggestive of the county associations affiliated with some of our state associations. Many of the activities of the various councils of the Order appear to be similar to those carried on by the county, state, and national pharmaceutical associations in America.

### Disciplinary Actions

In addition, each Regional Council has far-reaching authority in disciplinary matters. It sits as a court within its district in each case of discipline which is solely pharmaceutical, hears the evidence, and pronounces the penalty. This may take the form of a reprimand; an order prohibiting the practice of pharmacy for a specified period of time, with a maximum penalty of five years; or prohibition of practice throughout the lifetime of the offender. Appeals of decisions handed down by a Regional Council may be made to the Central Council, which in turn sits as a court. Finally, appeals of decisions of the Central Council may be made to the Council of State.

Many other services are rendered by the Order such as administration of a pension plan to which all pharmacists contribute. Publication and distribution of the Codex is taken care of by the Order. It is charged with the development of a Code of Ethics, and with devising means for encouraging adherence to it. Officials participate actively in international pharmaceutical congresses, and are deeply interested in arranging programs designed to foster professional and cultural exchange among pharmacists of France and those of other countries. The Order publishes a Bulletin, and arrangements have been completed for the publication of a lenghty résumé of the American Pharmaceutical Survey. A minor but deeply appreciated service is the helpful and courteous treatment accorded visiting pharmacists from foreign lands.

## SYNDICATES

Collective representation among pharmacists is not restricted in France to government-controlled agencies. In addition to the Central Service and the National Order, French pharmacists have a number of syndicates. These are organized and managed apart from the official agencies and membership is optional. Three of the syndicates are designed for retail pharmacists, one for manufacturers, one for wholesalers, one for pharmacist-biologists, and one for clerks and pharmacy assistants.

The syndicates function somewhat as do our unions, in that they attempt to improve working conditions, wages, prices, and other economic aspects of the practice of pharmacy. However, since such matters are more closely regulated by government in France than in America, most of the efforts at collective bargaining are directed toward agencies of the government. The syndicates deal chiefly with the Ministry of Industry and Commerce, and with the Ministry of Finances and Economic Affairs. Collectively, the syndicates constitute the Federal Union of Pharmacists of France.

## Professional Service Pharmacist

• • • • • • • • • • • • • • • • • • *from page 213*

basis of the comparative size of some sales staffs that there were probably in the neighborhood of 2000 detailmen in the early 1920's. The rapid upsurge in number seems to date approximately from the introduction of insulin in March, 1923. Prior to that time one pharmaceutical manufacturer, who even in the early 1900's had several hundred men in the field, devoted little attention to physicians until about 1918.

### Special Training

Increasing preparatory requirements for representatives made it necessary for pharmaceutical manufacturers to institute training classes before placing men, even pharmaceutically trained men, in the field. To employ physicians for pharmaceutical detail and sales work was no longer feasible except in special circumstances. Practicing physicians expected that manufacturers' representatives should be well informed. Today they are even more insistent upon it. Operative pharmacists expected manufacturers' representatives not only to be well informed on products but that they know the retail drug business.

Physicians of manufacturers' medical or clinical research departments were assigned to teach trainees the medical aspects of products. Chemists from the research laboratories were delegated to expound the chemical aspects of products. These courses improved with time. They became more technical. Medical terminology had to be taught. Special instruction in salesmanship and advertising as they relate to detail work and selling of manufacturers' pharmaceutical products to physicians and pharmacists was made an important part of the training program. Virtually a concentrated postgraduate course of study for prospective representatives had to be instituted by the pharmaceutical manufacturer. Why? Because of inadequate college training directed specifically to this extremely important and highly specialized branch of pharmacy—professional service pharmacy.

While the training classes of some pharmaceutical manufacturers have provided the means of overcoming these deficiencies, the necessary training is becoming too broad and too complex to be taught with the required efficiency and effectiveness in these training classes. They should not be expected to have to provide postgraduate training except as it applies to new, broader, and more thorough information on their own and competitive products.

### Times Have Changed

Pharmaceutical detailing—or preferably professional service pharmacy—is truly a highly specialized branch of pharmacy. The day when one can come into proficiency in professional service pharmacy by the, shall we say, apprenticeship or hit-and-miss system is virtually gone. Our pharmacy colleges must recognize their obligation to prepare students for this highly important branch of pharmacy for the benefit of pharmacy and the pharmacists as well as of the physician. They must provide them with the optimal educational background and teach them the physicians' language. I am sure that our pharmaceutical educators, at least many of them, are sympathetic toward it and are doing or planning to do something constructive about it.

In increasing degree physicians are relying upon professionally-minded operative pharmacists as well as upon manufacturers' professional service pharmacists for information on pharmaceutical products. More and more are physicians depending upon them for therapeutic as well as pharmacological information. That is as it should be. That is the pharmacists' business. The pharmacists' role as consultants to physicians in practical pharmacology and therapeutics is becoming increasingly important. The inestimable value of service rendered to physicians by well-informed detailmen is largely responsible for this.

Let us remember that salesmen have made America great. They have created the markets for new products which have enabled our magnificient country to become the greatest producing and consuming nation with the highest standard of living that the world has ever known.

Will pharmacy continue to contribute its share to informed and even more effective selling? We have that responsibility to medicine and to the continued progress of America.

With the increasing number of specialties, detail men must find a way to call on more pharmacies—small as well as large. If you have solved this problem, either as a detail man, or as a pharmacist, tell us how you did it so that others—and the professions and the public—can benefit by your experience.

## ASSOCIATIONS

Four men were honored at the February 16 mid-winter meeting of the **Maine Pharmaceutical Association** with the presentation of lapel insignia commemorating their long service in the pharmacy field. They are: A. C. Buxton, Fort Fairfield; Dr. Leon Thompson, Sorrento; Louis H. Galluba, Portland; and Carl Preble, Bangor.

A committee of five members of the **Arizona Pharmaceutical Association** has recently been chosen to work with the Arizona State civilian defense group with the purpose of setting up suggestions, rules, and committees to carry out proper civil defense work in Arizona.

Sponsored jointly by the **Connecticut Pharmaceutical Association** and the University of Connecticut College of Pharmacy, the first of six lectures in the Fifth Postgraduate Course was given March 26 at the College of Pharmacy building.

Dr. Robert P. Fischelis, Secretary and General Manager of the A. PH. A., spoke at both the **Iowa** and **Kansas Pharmaceutical Association** Conventions this month. In each instance he discussed current affairs in government as they affect pharmacy.

## COLLEGES

The opening lecture in the seventh annual lecture series for pharmacists, sponsored by the **Rutgers University College of Pharmacy** and the **Northern New Jersey Branch,** was given March 7 at the Rutgers University College of Pharmacy, by Dr. C. Paul Silirie, medical service director of Merck & Co. The subject of his talk was "Modern Anti-rheumatics."

The second talk in the series was given March 14 by Dr. Geoffrey W. Rake, director of the Squibb Institute for Medical Research. Dr. Rake evaluated anti-anemia factors as to their place in present-day therapy.

Principal officers of national, Illinois, and Chicago pharmaceutical organizations recently were informed of expansion plans of the **University of Illinois Colleges of Pharmacy, Dentistry, and Medicine.** The meeting, sponsored by the Alumni Associations of the Colleges of Pharmacy, Dentistry, and Medicine, was the first joint meeting of association officers in the health professions. Its purpose was to develop a plan whereby the present unified teaching and research programs of the Chicago Professional Colleges could be expanded to meet the health needs in the state of Illinois.

Dr. John B. Truslow, formerly assistant dean of **Columbia College of Physicians and Surgeons,** became Dean of the School of Medicine January 1. Dean Truslow succeeds Dr. Harvey B. Haag, who resigned in order to give full time to teaching and research in the department of pharmacology of which he has been head for many years.

**The Medical College of Virginia School of Pharmacy** has been doing its share in attempting to point out the role of pharmacy in the present civil defense effort. On March 14 and 15, the College presented a Seminar Program emphasizing "The Pharmacist's Role in Civil Defense." Speakers and their subjects at the seminar were: Lt. Colonel F. P. Pitts, Department of Chemistry, "Some Aspects of Radiological Defense; Capt. Herman Nachman, Department of Surgery, "Medical Aspects of Atomic Bombing"; Mr. Abraham Rosensweign, McGuire Veterans Administration Hospital, "Biological Warfare"; Mr. R. R. Rooke, past president of the Virginia Pharmaceutical Association, "Organization of First Aid Services"; Mr. J. Curtis Nottingham, Secretary, Virginia Pharmaceutical Association, "Health Supplies"; Mr. Russell Fiske, chief pharmacist of the College Hospitals, "Civil Defense Hospital Services"; and Dr. Nancy King, Department of Pharmacy, "First Aid Measures." Each presentation was followed by a question and answer period.

The first of 400 medical aid stations to be organized for the Civil Defense Program in New York City will be set up at **Fordham University.** Dr. Leonard J. Piccoli, chairman of the New York State Pharmaceutical Association Civil Defense Training Committee, made this announcement at the third first aid refresher course for pharmacists, March 27.

This refresher course, joint meeting of the Westchester County Pharmaceutical Association and the Alumni Association of the Fordham College of Pharmacy, is the third of a series of forty which will be given throughout New York State under the auspices of the New York State Pharmaceutical Association Civil Defense Training Committee. (For more on Fordham's CD activity, see the March issue of THIS JOURNAL, page 168.)

Hospital pharmacy specialists from Texas and adjoining states will discuss latest developments in their field, April 23–24, at a **University of Texas** Seminar. This third annual conference is sponsored jointly by the University's College of Pharmacy and Extension Division.

Dean A. F. Schlichting of the **St. Louis College of Pharmacy and Allied Sciences** has announced that the College will return to an accelerated program such as was adopted during World War II. The accelerated program, to be reinstituted this coming June, will allow students to complete the normal four-year course in two years and eight months of continuous attendance. Students who wish to complete the course in the usual four-year period may do so by attending but two semesters each year.

A regulation **lifting the price freeze on** college and university **tuition**, charges, and rates was signed on March 29, 1951. Educators will be kept advised of changes in this regulation through bulletins of the American Council on Education. Information pertinent to pharmacy will appear in THIS JOURNAL.

## AT RANDOM

**Dr. Howard A. Rusk,** director of the Institute of Rehabilitation and Physical Medicine of the New York University-Bellevue Medical Center, was presented with the **1951 Research Award** of the American Pharmaceutical Manufacturers' Association at the annual session of the A. P. M. A. at Boca Raton, Fla., on April 2. Dr. Rusk is the first clinician to receive the award.

Pharmacy students all over the world are invited to attend the second conference of the **International Pharmaceutical Students' Federation,** to be held in Copenhagen, Denmark, in August. Although the Conference itself will last four days, August 20, 21, 22, and 23, a pre-conference Holiday Camp will be open the preceding week. Notification of attendance must be given the Secretary-General not later than May 1. For further information write to: Bent Foltmann, Secretary-General, International Pharmaceutical Students' Federation, H. C. Orstedsvej 39B, Copenhagen V, Denmark.

May 9 and 10 are the dates of the special Tenth Anniversary Program of the **American Institute of the History of Pharmacy** to be conducted at the University of Wisconsin. The annual meeting of the A. I. H. P. will be held Wednesday, May 9, 4:30 p. m., at the University. New officers will be elected at this annual meeting.

Nominations for the **American Chemical Society's Fritzsche Award** are now being received by the canvassing committee. This award is given annually for outstanding achievement in the field of essential oils and related products embracing analysis, research, or new applications of such materials. There are no limits on age or nationality. The award consists of a gold medal and one thousand dollars in cash.

Names of the nominees for the 1952 award must be in the hands of the executive secretary of the American Chemical Society, 1155 Sixteenth Street, N. W., Washington 6, D. C., not later than June 1, 1951. Nominations must be made through a member of the American Chemical Society.

**Alpha Pi,** the first alumni chapter of Rho Chi, national pharmaceutical honor society, was installed March 3, in Tucson, Arizona. Dr. Roy A. Bowers, dean of the College of Pharmacy, University of New Mexico, and national secretary-treasurer of Rho Chi, presented the charter during installation ceremonies held at St. Mary's Hospital.

Officers are: Dr. W. R. Brewer, head of the department of pharmacognosy, University of Arizona, president; Sister Elizabeth Joseph Scherer, vice-president; and William M. Bethmann, secretary.

## MANUFACTURERS

Plans for the production of two new "Tele-Clinics," motion picture reports on medical meetings of national significance to the medical profession, were recently announced by **Wyeth, Inc.** In cooperation with the American Academy of General Practice, Wyeth filmed their annual convention, March 19–22 in San Francisco. In April, Wyeth will photograph the annual meeting of the American College of Physicians.

Irving J. Seskis, president of **Schenley Laboratories, Inc.,** died at Ochsner Clinic, New Orleans, La., March 5, at the age of 52. Mr. Seskis, who was born in New York City on Sept. 4, 1898, joined Schenley Industries, Inc., as a vice-president and director in 1940, a position he retained even after his appointment as head of the pharmaceutical subsidiary. He also was a member of the executive and finance committee.

Mr. Seskis headed Schenley Industries' pioneer activities in the mass production of penicillin. The successful campaign to produce penicillin on a large scale led to organization of Schenley Laboratories.

**General Robert W. Johnson,** board chairman of Johnson & Johnson, New Brunswick, N. J., has been elected to membership in the American College of Surgeons. General Johnson is the first layman to be so honored by the College.

**Wyeth, Inc.** has recently announced that its Kaomagma® with pectin will carry the new name of **Kalpec.** The first six months' cartons and labels for 12-oz. trade packages will carry this sentence: "Formerly supplied as Kaomagma® with Pectin." Wyeth announces that there is no change in the formulation of the product.

Work of the new **DuPont** laboratory farm near Newark, Del., will deal with the application of new synthetics to control of bacterial and virus diseases, parasites, and insects.

Plans for a modern pharmaceutical plant in Illinois, which will provide needed facilities for production of ACTH and other hormones, enzymes and rare drugs, were recently made public by the **Armour Laboratories.**

### *Personnel Changes—*

**Personal Products Corporation**—E. W. Jochim, general manager of the Chicago division, was recently elected to the Board of Directors... E. R. Harrington has been placed in charge of the Southwestern, Great Lakes, Midwestern, and Northwestern divisions...C. J. Copeland has been promoted to national field sales supervisor in charge of retail sales and merchandising training...Frank A. Lorge is now sales manager of the Midwestern division...C. A. Brown will be sales supervisor of the Pacific Coast Division. **Winthrop-Stearns, Inc.**—Dr. May Sherman has joined the medical staff as associate medical director. **Sharp & Dohme, Inc.**—Dr. Richard T. Smith was appointed staff physician in the Medical Division. **Marvin R. Thompson, Inc.**—Gustave Bardfeld, former director of sales and public relations, has been appointed director of clinical research. **Wyeth, Inc.**—H. F. Anderson was recently promoted district manager of the New Orleans division. **Evans Research & Development Corporation**—Hilde R. Weil and Frank E. Ellison have joined the staff as research assistants. **Central Pharmacal Company.**—Dr. Carl J. Klemme, recently associated with the St. Louis College of Pharmacy and Allied Sciences, has recently joined the Company as director of research and product development. **Ayerst, McKenna & Harrison Ltd.**—Dr. A. Stanley Cook, vice-president, has transferred his headquarters to the New York offices. Dr. Cook will continue to coordinate the scientific and technical aspects of the business for both U. S. and Canadian divisions. **Chilcott Laboratories**—Dr. A. Wayne Ruddy has been appointed to the research staff as Director of Organic Chemical Research. **C.S.C. Pharmaceuticals**—John R. Biederman has been appointed assistant director and will supervise the expansion of the sales force...Thomas R. Callery has been made executive assistant. **The Arner Company**—J. William Harlow will head the Company's new analytical laboratory in Fort Erie, Ontario. The laboratory recently opened in March. **A. H. Robins Co., Inc.**—E. F. Heffner, Jr., general sales manager since 1942, was recently elected vice-president in charge of sales. **California Fruit Growers Exchange**—Donald R. Thompson has been named manager of the products department. Mr. Thompson started his career with the Company's research department in 1927.

**Merck & Co., Inc.,** is planning a new multi-million dollar cortisone production unit near Danville, Pa., which will more than double their capacity for "Cortone" a brand of Cortisone.

More than 800 physicians of Philadelphia and vicinity attended the second symposium conducted March 15 by **Smith, Kline & French Laboratories** on "The Clinical Problems of Advancing Years." Dr. E. V. Cowdry, professor of anatomy at Washington University School of Medicine, one of the speakers, predicted that the older generation faces longer years of work.

"The immediate concerns of our government, and of all governments, is to combat chronic invalidism and to increase the man and woman power pools by effectively utilizing the labor of older people to compensate for the drain of younger ones into the armed services and war industries," Dr. Cowdry stated.

**Geigy Pharmaceuticals,** Division of Geigy Company, Inc., moved to larger quarters on April 2. The new offices are located at 220 Church Street, New York 13, N. Y.

## HOSPITAL PHARMACY

Announcement of the program for the **Seventh Institute on Hospital Pharmacy** has been made with meetings scheduled for June 11–15 at Hotel Roosevelt in New Orleans. Again offering a program aimed toward raising the standard of pharmacy practice in hospitals, subjects to be covered include basic principles of organization and administration, hospital pharmacy management, equipment and procedures and current trends in pharmacology and therapeutics. The Institute will again be conducted by the AMERICAN PHARMACEUTICAL ASSOCIATION, the American Society of Hospital Pharmacists, and the American Hospital Association in cooperation with the Southeastern Society of Hospital Pharmacists and the Louisiana Society of Hospital Pharmacists.

The International Hospital Federation is holding the **Seventh International Hospital Congress** in Brussels, Belgium, July 15–21. "The Care of the Chronic Sick and Aged" will be the central theme of

the Congress with sectional meetings covering the following subjects: National and Regional Planning; Planning, Construction, and Maintenance; Organization, Administration and Finance; and Medical Nursing, Social and Intellectual Care.

**Mr. Leonard P. Goudy,** secretary of the American Hospital Association's Council on Administrative Practice, has been appointed consultant on hospital civilian requirements to the new Civilian Health Requirements Division of the Public Health Service.

Dr. Robert P. Fischelis, Secretary of the AMERICAN PHARMACEUTICAL ASSOCIATION, spoke on "Pharmacy's Contribution to Adequate Standards for Hospitals" at the annual **Southeastern Hospital Conference** in St. Petersburg, Fla., April 4 and 5.

**Charles T. Dolezal,** M.D., Assistant Director of the American Hospital Association, died March 19 in Chicago. As Secretary of the A. H. A.'s Council on Professional Practice, Dr. Dolezal has worked with the A. PH. A.'s Division of Hospital Pharmacy in promoting the Institutes on Hospital Pharmacy and in establishing the Minimum Standard for Pharmacies in Hospitals. He was a native of Cleveland where he was commissioner and superintendent of City Hospital prior to going with the A. H. A. He had also served as director of Public Health and Welfare of the City of Cleveland, and as assistant superintendent of City Hospital. Mr. Dolezal is survived by his wife, Helen.

## GOVERNMENT

State directors of **Public Health Nursing** from the 48 States, Alaska, Hawaii, District of Columbia, Puerto Rico, and the Virgin Islands, held their biennial conference with the Public Health Service and The Children's Bureau of the Federal Security Agency March 12–16, Washington, D. C.

The purpose of the Conference was to plan for the utilization of public health nurses during this national emergency.

**Assistant Surgeon General Ralph C. Williams** was retired on February 1 after more than thirty-three years of service in the Public Health Service. He has been head of the Division of Hospital Services since 1943.

Dr. Williams joined the Public Health Service in 1917 and has served as public relations officer, chief medical officer of the Farm Security Administration, and as officer in charge of Public Health District No. 1. He has recently completed a history, *The United States Public Health Service, 1798–1950.* (Reviewed in THIS JOURNAL, March, 1951.)

**Typical Days** • • • • • • • • *from page 236*

civilian requirement problems when drugs and health supplies come into more urgent demand. In the afternoon a visit from a student group of the College of Pharmacy of Temple University. Now off to Columbus, and Wichita.

*24th* The past two days spent with the Committee of Six and the Committee on Constitution and By-laws of the A. PH. A. at Ohio State University, under the chairmanship of Dean Christensen, and with President Gregg, H. C. Muldoon, Newell Stewart and George Webster in attendance. Today a conference with Ohio State Ph. A. Secretary, James H. Merritt.

*28th* After this Ohio meeting, on to Kansas City and Wichita to address the Kansas Pharmaceutical Association in the latter city at its annual convention. Here many important questions dealing with the emergency and long term problems of pharmacy were answered, and valuable information was obtained as to the reactions of people at pharmacy's grass roots. Another well-conducted convention with management honors going to efficient Secretary Clara Miller.


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## STUDENT BRANCHES • • • *from page 243*

Members of the **Howard College Branch** heard a talk on "Professional and Business Insurance" by Lawrence E. McNeil, Birmingham, at the March 1 meeting.

The February meeting of the **University of Utah Branch** was turned over to Mr. Frank Snedger, Mr. Thomas Richards, and Mr. Jerry Johnson, representatives of E. R. Squibb & Sons, who presented a discussion program illustrated with sound films.

"Opportunities in Pharmacy" was the theme of the **District No. 4 Student Branches 1951 Convention** held at the University of Michigan, April 15, 16, and 17. Speakers at the convention included: Dr. Robert P. Fischelis, Secretary of the AMERICAN PHARMACEUTICAL ASSOCIATION; Mr. Don Francke, president-elect of the A. PH. A.; Mr. Robert E. Jones, senior assistant pharmacist, U. S. Marine Hospital, Detroit, Michigan; Mr. Eidson, Ann Arbor, Michigan; Mr. John MacCartney, second vice-president elect of the A. PH. A., and Mr. F. E. Willson, both of Parke, Davis & Co.; Mr. O. K. Grettenberger, Michigan State Board of Pharmacy; and Dr. H. B. Lewis, biochemistry department, University of Michigan.

Mr. Edson Woodward, of S. B. Penick Company, addressed the members of the **Massachusetts College of Pharmacy Branch** on March 6. Mr. Woodward spoke on the Upjohn-Penick expedition to Africa in search of Strophantus species.

The March 21 meeting of the **St. Louis College of Pharmacy Branch** was addressed by Mr. John A. MacCartney, second vice-president elect of the AMERICAN PHARMACEUTICAI ASSOCIATION, and manager of Trade Relations for Parke, Davis & Co., and Mr. Frank E. Willson, also of Parke, Davis & Co. Mr. MacCartney and Mr. Wilson discussed job opportunities in pharmacy.

A student conference open forum was held at **Rutgers University College of Pharmacy,** April 8. Dr. Robert P. Fischelis, Secretary of the A. PH. A., reviewed the present deferment status of pharmacy students.

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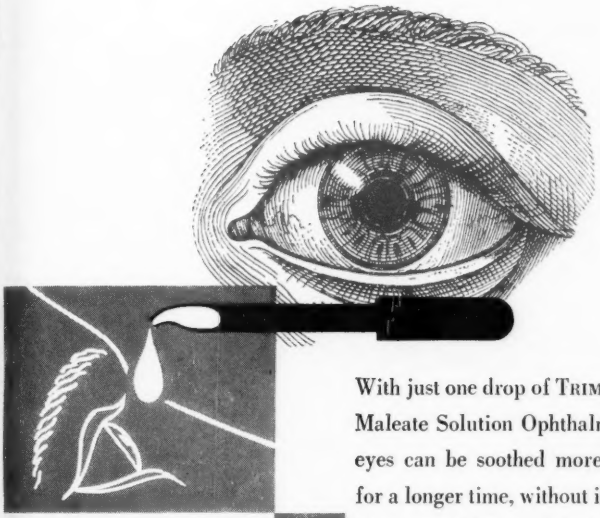

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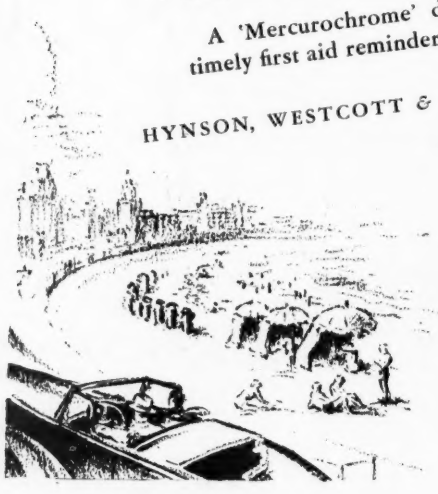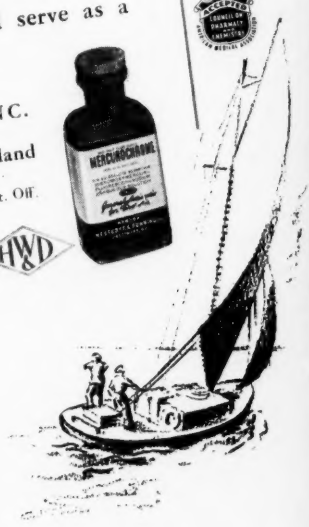
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